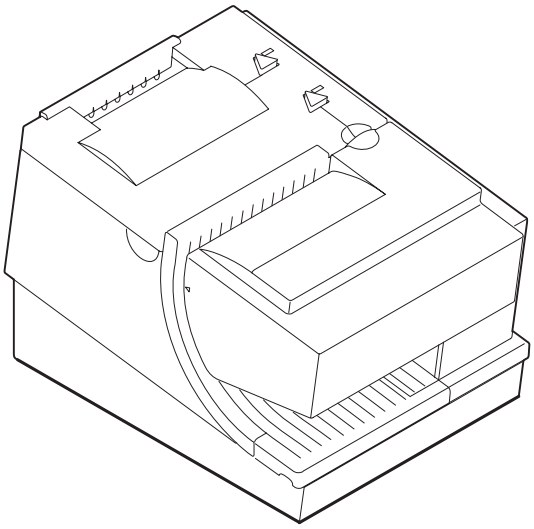
4610 - K*xx* Fiscal Printer

Service Supplement



(GY27-0366) April 3, 2003

4610 - K*xx* Fiscal Printer

Service Supplement

(GY27-0366) April 3, 2003

Note

Before using this information and the product it supports, be sure to read “Safety information” on page xi and the general information under “Notices”, on page 59.

Second Edition (March, 2003)

This edition applies to the 4610 SureMark Fiscal Printer Models Kxx.

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Preface

This manual provides information about problem determination, testing, and a parts listing of field-replaceable units (FRUs) for the 4610 Suremark Fiscal Printer Models KR3, KR5, KC4, KC5, KD3, and KD5.

This document supplements the *IBM 4610 SureMark Printer: Hardware Service Manual*, *IBM 4693, 4694, 4695 Point-of-Sale Terminals: Hardware Service Manual*, *IBM Store Systems: Hardware Service Manual for Point-of-Sale Input/Output Devices*, and the *IBM 4690 Store System: Messages Guide*.

Who should read this manual

This manual is intended for use by trained service representatives.

How this manual is organized

- Chapter 1, “Printer Overview” provides an overview of the Model Kxx printers.
- Chapter 2, “SureMark printer service manual supplement” provides information on testing, messages, and lists symptoms for identifying failing components of the printer. This chapter also includes procedures for removing and replacing printer components.
- Chapter 3, “Point-of-Sale terminal service manual supplement” provides supplemental information about the 4693, 4694, 4695 error conditions as related to the Fiscal Printers.
- Chapter 4, “System log descriptions” provides additional information about System Log messages.
- Chapter 5, “Hardware service manual for input/output devices supplement” provides additional information about the service diskette error messages that are related to the Fiscal Printers.
- Chapter 6, “Parts listing” provides a parts listing for the Fiscal Printers.
- “Notices” contains legal notices and trademark information.

Related publications and diskettes

- *IBM SureMark Printers: Hardware Service Manual*, GY27-0355
- *IBM 4693 Point-of-Sale Terminals Reference Diskette*
- *IBM 4694/4695 Point-of-Sale Terminals Service Diskette*
- *IBM Safety Information – Read This First*, GA27-4004
- *POSS Programming Reference and User’s Guide*, SC30-3560
- Country-specific Programming Guides (look under **publications** at: `http://www.ibm.com/solutions/retail/store`.)

The diskettes are available only by download from the Internet at: `http://www.ibm.com/solutions/retail/store`.

For information about ordering IBM publications that are not shipped with the printers, contact your IBM representative or your place of purchase.

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Where to find more information

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Current versions of Retail Store Solutions documentation and downloadable diskettes are available on our Web site: http://www.ibm.com/solutions/retail/store

Summary of changes

October, 2002

Added:

- Updated part numbers in parts catalog Assembly 12.

March, 2003

Added new Models KCx (for Chile), KDx (Hungary and Italy), and KRx (for Italy).

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Safety information

Danger:
Before you begin to install this product, read the safety information in *IBM Safety Information - Read This First*, GA27–4004. This booklet describes safe procedures for cabling and plugging in electrical equipment.

Gevaar:
Voordat u begint met de installatie van dit produkt, moet u eerst de veiligheidsinstructies lezen in de brochure *Veiligheidsinstructies—Lees dit eerst*, GA27–4004. Hierin wordt beschreven hoe u electrische apparatuur op een veilige manier moet bekabelen en aansluiten.

Perigo:
Antes de começar a instalar este produto, leia as informações de segurança contidas em *Informações Sobre Seguranaça—Leia Isto Primeiro,* GA27–4004. Esse folheto descreve procedimentos de segurança para a instalação de cabos e conexões em equipamentos elétricos.

Fare!
Før du installerer dette produkt, skal du læse sikkerhedsforskrifterne i *Sikkerhedsforskrifter—Læs dette først* GA27–4004. Vejledningen beskriver den fremgangsmåde, du skal bruge ved tilslutning af kabler og udstyr.

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Gevaar

Voordat u begint met het installeren van dit produkt, dient u eerst de veiligheidsrichtlijnen te lezen die zijn vermeld in de publikatie *IBM Safety Information — Read This First*, GA27–4004. In dit boekje vindt u veilige procedures voor het aansluiten van elektrische appratuur.

VAARA

Ennen kuin aloitat tämän tuotteen asennuksen, lue julkaisussa *Turvaohjeet—Luetämä ensin*, GA27–4004, olevat turvaohjeet. Tässä kirjasessa on ohjeet siitä, miten sähkölaitteet kaapeloidaan ja kytketään turvallisesti.

Danger

Avant d'installer le présent produit, consultez le livret *Informations pour la sécurité–Lisez-moi d'abord*, GA27–4004, qui décrit les procédures à respecter pour effectuer les opérations de câblage et brancher les équipements électriques en toute sécurité.

Vorsicht

Bevor mit der Installation des Produktes begonnen wird, die Sicherheitshinweise in *Sicherheitsinformationen—Bitte zuerst lesen,* IBM Form GA27–4004. Diese Veröffentlichung beschreibt die Sicherheitsvorkehrungen für das Verkabeln und Anschlie*ß*en elektrischer Geräte.

Vigyázat

Mielôtt megkezdi a berendezés üzembe helyezését, olvassa el a *IBM Safety Information — Read This First*, GA27–4004 könyvecskében leírt biztonsági információkat. Ez a könyv leírja, milyen biztonsági intézkedéseket kell megtenni az elektromos berendezés huzalozásakor illetve csatlakoztatásakor.

Pericolo

prima di iniziare l'installazione di questo prodotto, leggere le informazioni relative alla sicurezza riportate nell'opuscolo *Informazioni di sicurezza—Prime informazioni da leggere* in cui sono descritte le procedure per il cablaggio ed il collegamento di apparecchiature elettriche.

Fare

Før du begynner å installere dette produktet, må du lese sikkerhetsinformasjonen i *Sikkerhetsinformasjon—Les dette først,* GA27–4004 som beskriver sikkerhetsrutinene for kabling og tilkobling av elektrisk utstyr.

Perigo

Antes de iniciar a instalação deste produto, leia as informações de segurança *Informações de Segurança—Leia Primeiro,* GA27–4004. Este documento descreve como efectuar, de um modo seguro, as ligações eléctricas dos equipamentos.

Peligro

Antes de empezar a instalar este producto, lea la información de seguridad en *Información de Seguridad—Lea Esto Primero,* GA27–4004. Este documento describe los procedimientos de sequridad para cablear y enchufar equipos eléctricos.

Varning—livsfara

Innan du börjar installera den här produkten bör du läsa säkerhetsinformationen i dikumentet *Säkerhetsföreskrifter—Läs detta först,* GA27–4004. Där beskrivs hur du på ett säkert sätt ansluter elektrisk utrustning.

危險：安裝本產品之前， 請先閱讀
"IBM Safety Information--Read
This First" GA27-4004 手冊中所提
供的安全注意事項。 這本手冊將會說明
使用電器設備的纜線及電源的安全程序。

Opasnost: Prije nego sto počnete sa instalacijom produkta,
pročitajte naputak o pravilima o sigurnom rukovanju u
Upozorenje: Pravila o sigurnom rukovanju - Prvo pročitaj ovo,
GA27-4004. Ovaj privitak opisuje sigurnosne postupke za
priključrivanje kabela i priključivanje na električno napajanje.

Upozornění: než zahájíte instalaci tohoto produktu, přečtěte si
nejprve bezpečnostní informace v pokynech „ Bezpečnostní
informace“ č. GA27-4004. Tato brožurka popisuje bezpečnostní
opatření pro kabeláž a zapojení elektrického zařízení.

Κίνδυνος: Πριν ξεκινήσετε την εγκατάσταση αυτού του προϊόντος,
διαβάστε τις πληροφορίες ασφάλειας στο φυλλάδιο *IBM Safety
Information-Read this first,* GA27-4004. Στο φυλλάδιο αυτό
περιγράφονται οι ασφαλείς διαδικασίες για την καλωδίωση των
ηλεκτρικών συσκευών και τη σύνδεσή τους στην πρίζα.

危険： 導入作業を開始する前に、安全に関する
小冊子 GA27-4004 の「最初にお読みください」
(Read This First)の項をお読みください。
この小冊子は、電気機器の安全な配線と接続の
手順について説明しています。

위험: 이 제품을 설치하기 전에 반드시
"주의: 안전 정보-시작하기 전에"
(GA27-4004) 에 있는 안전 정보를
읽으십시오.

סכנה: לפני שמתחילים בהתקנת מוצר זה, יש לקרוא את הוראות הבטיחות בחוברת
Caution: Safety Information - Read This First, GA27-4004
חוברת זו מתארת את הוראות הבטיחות לחיבור הכבלים ולחיבור לחשמל של ציוד חשמלי.

خطـــر: قبـــل عمـــلية بـــدء تركيـــب هذا المنتـــج، قم بقراءة معلومـــات
الحمـــاية الموجودة في التحذيـــر: معلومـــات الحمـــاية – Read This First،
GA27-4004 . يقـــوم هذا الكتيـــب بوصـــف اجـــراءات الآمـــان
لتوصـــيل الأدوات الكـــهربائية بالكـــابلات والمقبـــس الكـــهربائـــي.

ОПАСНОСТ
Пред да почнете да го инсталирате овој продукт, прочитајте ја информацијата за безбедност:
"Предупредување: Информација за безбедност: Прочитајте го прво ова", GA27-4004.
Оваа брошура опишува безбедносни процедури за каблирање и вклучување на електрична опрема.

Uwaga:
Przed rozpoczęciem instalacji produktu należy zapoznać się z instrukcją:
"IBM Safety Information - Read This First", GA27-4004.
Zawiera ona warunki bezpieczeństwa przy podłączaniu do sieci elektrycznej i eksploatacji.

ОСТОРОЖНО: Прежде чем инсталлировать этот продукт, прочтите Инструкцию по технике безопасности в документе "Внимание: Инструкция по технике безопасности -- Прочесть в первую очередь", GA27-4004. В этой брошюре описаны безопасные способы каблирования и подключения электрического оборудования.

Nebezpečenstvo: Pred inštaláciou výrobku si prečítajte bezpečnosté predpisy v
Výstraha: Bezpeč osté predpisy - Prečítaj ako prvé, GA27-4004. V tejto brožúrke sú opísané bezpečnosté postupy pre pripojenie elektrických zariadení.

Pozor: Preden zaènete z instalacijo tega produkta preberite poglavje: 'Opozorilo: Informacije o varnem rokovanju-preberi pred uporabo," GA27-4004. To poglavje opisuje pravilne postopke za kabliranje,

危險：

開始安裝此產品之前，請先閱讀安全資訊。

注意：

請先閱讀 - 安全資訊 GA27-4004

此冊子說明插接電器設備之電纜線的安全程序。

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Chapter 1. Printer Overview

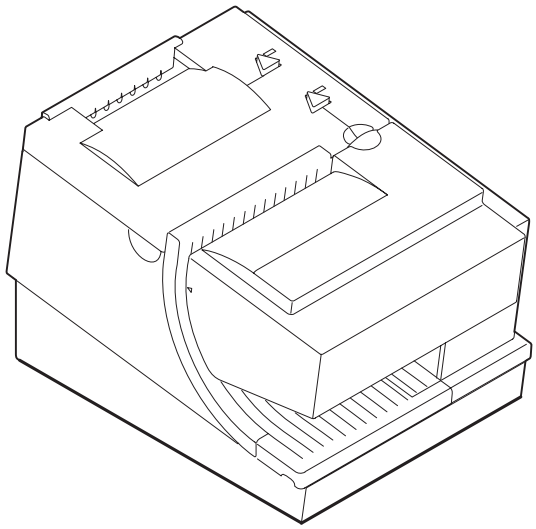

Figure 1. 4610 Fiscal Printer Models

The IBM 4610 SureMark (two-station) printers are available for fiscal and non-fiscal applications. This document supplements the non-fiscal *Suremark Printers Hardware Service Manual* with information about fiscal models.

Available Model Designations

4610 - K*xx* Fiscal Printer refers to the 4610 models KR3, KR5, KC4, KC5, KD3 and KD5. See Table 1 for details of the features associated with each model.

Table 1. Fiscal Printer Models

Model Number	Interface Connection	MICR	Document Insert	Cash Drawer Support	POS Terminal	Power Source
4610-KR3	RS-485	No	Yes	No	4694	4694
4610-KR5	RS-485	No	No	No	4694	4694
4610-KC4	RS-232	Yes	Yes	Yes	4694	External
4610-KC5	RS-232	No	No	Yes	4694	External
4610-KD3	RS-232	No	Yes	Yes	SP300/500/600	External
4610-KD5	RS-232	No	No	Yes	SP300/500/600	External

The IBM SureMark Fiscal Printers are high-performance, high-function printers. As shown in Table 1, these printers are available in several models:

- Models Kx3 features a thermal customer receipt (CR) station and an impact document insert (DI) station. The dual printheads enable quiet, fast printing at the customer receipt station while providing the capability to print multipart forms through the document insert station.
- Models Kx5 are identical to the Kx3 models; however, they have no DI station.
- Models Kx4 have both the DI station with impact printhead, and the MICR.

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The following features are supported:

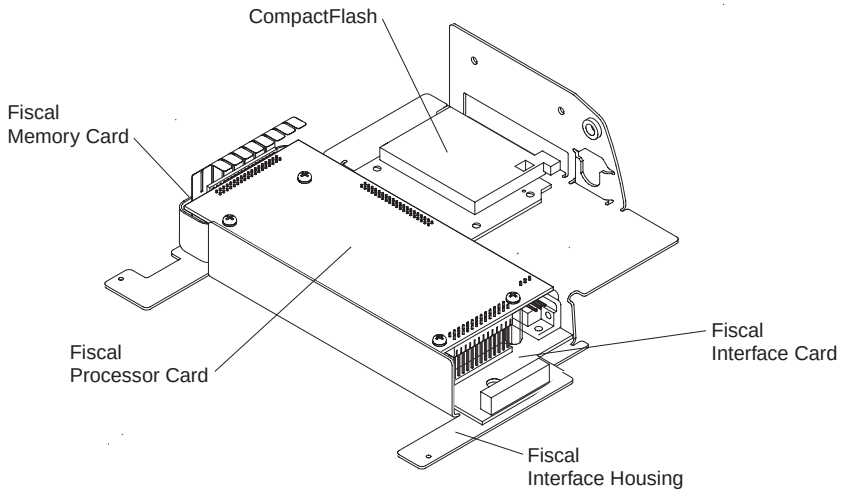
- Integration Panel
- 40-Character VFD Post Extension
- RS-485 interface cables – distributed and integrated lengths (Models KRx only)
- RS-232 interface cables – three lengths (Models KCx and KDx only)
- Cash drawer (Models KCx and KDx only)

The 4610 SureMark Fiscal Printer Models Kxx

The model Kxx printers are modified versions of the IBM 4610 SureMark Printer. The bottom part of the top cover has been modified to accept two screws that lock down the cover. These screws are hidden beneath the fiscal interface assembly. The fiscal interface assembly must be removed to gain access to the screws to remove the top cover. This change distinguishes the 4610 Fiscal Printer from the 4610 TIx versions of the printer.

Note: ***The 4610 - K**xx* **Fiscal Printers have no physical journal station.*** Electronic journaling in the printer eliminates the need to store paper journal tapes.

The Fiscal interface assembly



The fiscal interface assembly consists of four fiscal logic cards that are contained in the fiscal housing, which is mounted under the printer. The assembly is secured with a fiscal screw and a tamper-evident seal. The fiscal logic is contained on several cards which are:

- The fiscal processor card

  The fiscal processor card performs the functions of:
  - Verifying commands
  - Accumulating transaction totals
  - Returning status and return codes to the POS terminal

  - Communicating with the printer logic card.
- The fiscal interface card

  The interface card provides the POS terminal communication and power interface, and power conversion functions.
- The fiscal memory card

  The fiscal memory card holds a nonvolatile memory module where long-term printer transaction totals are permanently stored. This fiscal memory card is imbedded in epoxy and sealed to the metal fiscal housing, which provides security from tampering.
- The CompactFlash assembly

  The CompactFlash assembly contains the CompactFlash card, which is where the printer's electronic journal is stored.

Attention: ***Opening the fiscal enclosure may be performed only by government-approved service personnel. Also, in some countries, changing the CompactFlash card may only be performed by government-approved service personnel.***

Chapter 2. SureMark printer service manual supplement

This chapter supplements the *IBM 4610 SureMark Printers: Hardware Service Manual, GY27-0355*.

Electrostatic discharge

Attention: Electrostatic discharge (ESD) damage can occur when there is a difference in charge between the part, the product, and the service person. No damage occurs if the service person and the part being installed are at the same charge level as the product.

ESD damage prevention

Whenever a service action involves physical contact with logic cards, modules, back-panel pins, or other ESD-sensitive (ESDS) parts, the service person must be connected to an ESD common ground point on the product through the ESD wrist strap and cord.

The ESD ground clip can be attached to any frame ground, ground braid, green wire ground, or the round ground prong on the AC power plug. Coax or connector outside shells can also be used.

Handling removed cards

Logic cards removed from a product must be placed in ESD protective containers. No other object should be allowed inside the ESD container with the logic card. Attach all tags or reports that must accompany the card to the outside of the ESD container.

Removal and replacement procedures

This section includes removal and replacement procedures specific to the 4610 fiscal printer:

- Fiscal interface assembly
- Top cover
- Fiscal processor card
- Fiscal interface card
- Memory card
- CompactFlash card assembly
- CompactFlash card

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Fiscal interface assembly

1. Power OFF the printer by either powering off the terminal or unplugging the external power source from the electrical outlet.
2. Remove the fiscal printer seal that covers the fiscal screw.
3. Remove the fiscal screw.

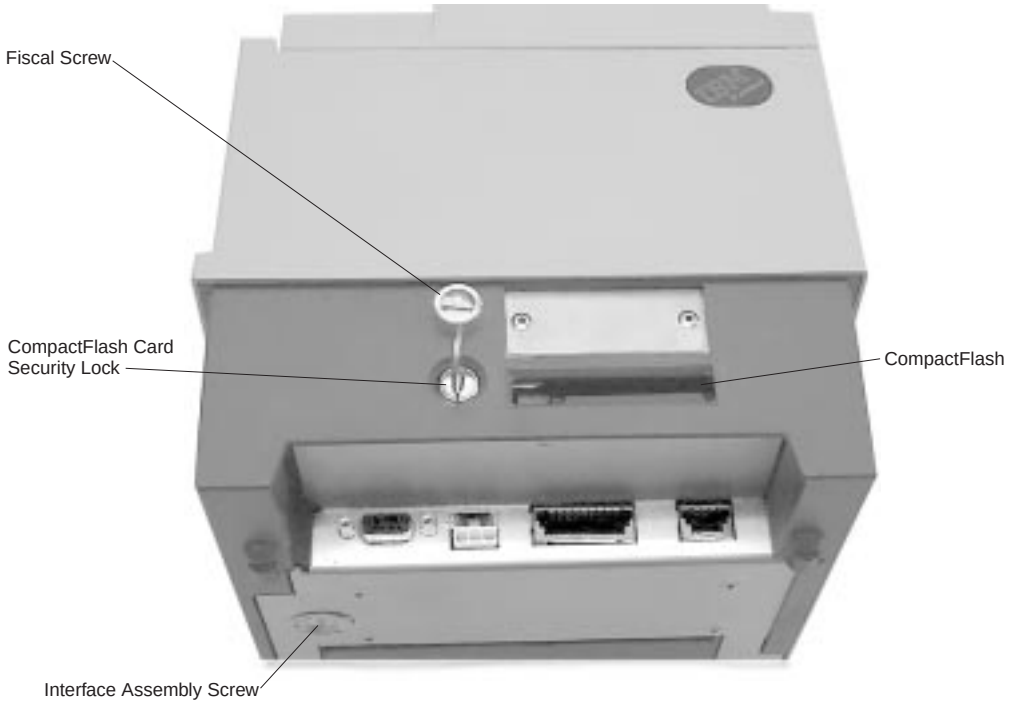

Figure 2. Removing the Fiscal Screw from Rear Panel

4. Remove the CompactFlash card by pressing the card eject button with a pencil.
5. Flip the printer upside down.
6. Loosen the interface assembly screw on the bottom of the printer.

Note: After the repair, follow the local procedures to reseal (if applicable) the machine, and return the machine to service. Additional procedures or paper work may be required.

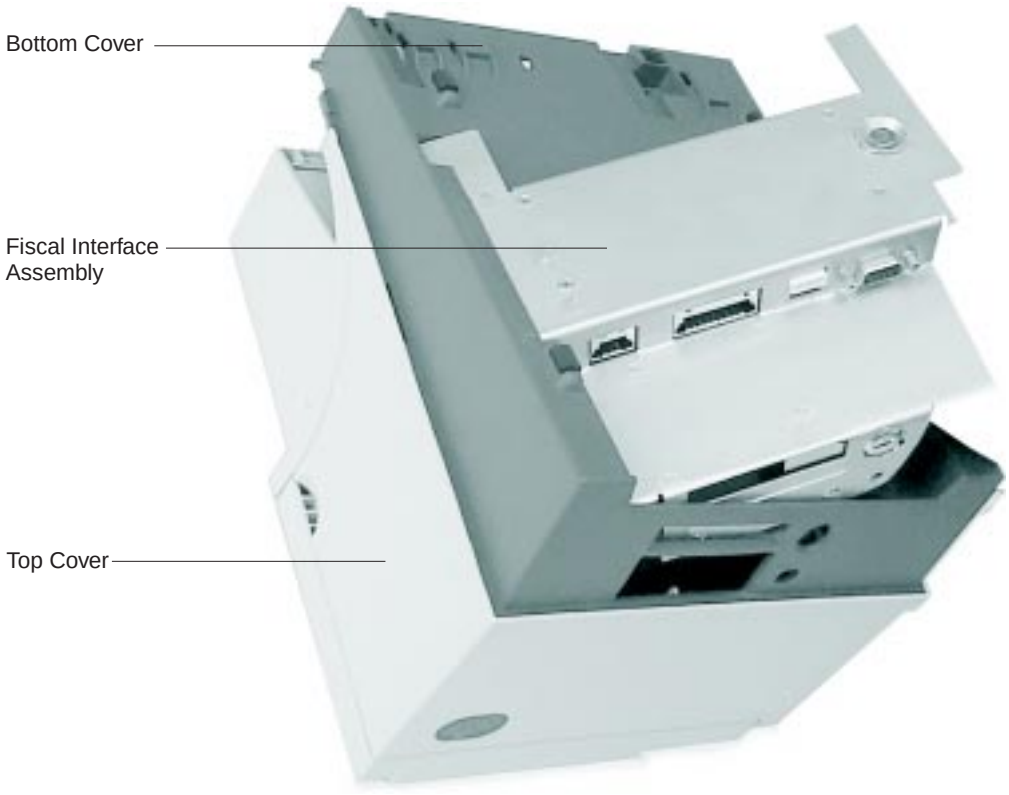

Figure 3. Tilting and Lifting Assembly out of Printer

7. Gently tilt and lift the fiscal interface assembly out of the printer.

Top cover

1. Power OFF the printer by either powering off the terminal or unplugging the external power source from the electrical outlet.
2. Perform the removal procedure for the fiscal interface assembly (see page 6).
3. Remove the two screws from the bottom of the printer.

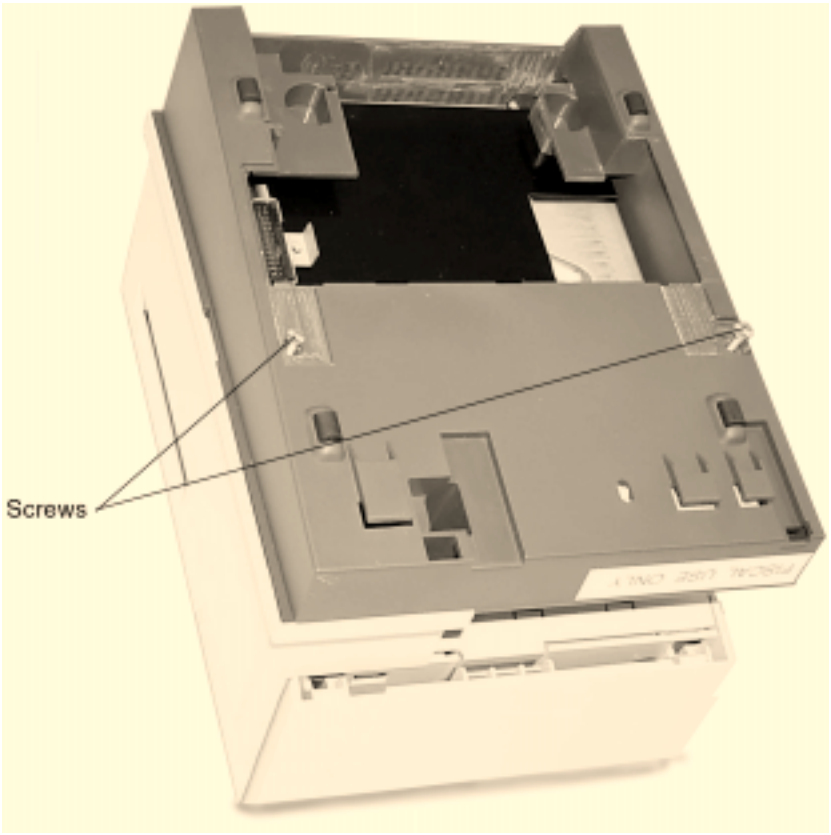

Figure 4. Removing Two Screws from Base

4. See Figure 5 on page 9. Open the **paper cover**. Place the top of the screwdriver handle between the side of the printer and the top cover. Then close the top cover on the screwdriver, one side at a time. This frees the pivots on both sides. Slide the paper cover forward and out.
5. Open the **ribbon cover** using the lift tab. From the right side, push the **ribbon cover** towards the left side while pressing the lock tab, and remove.

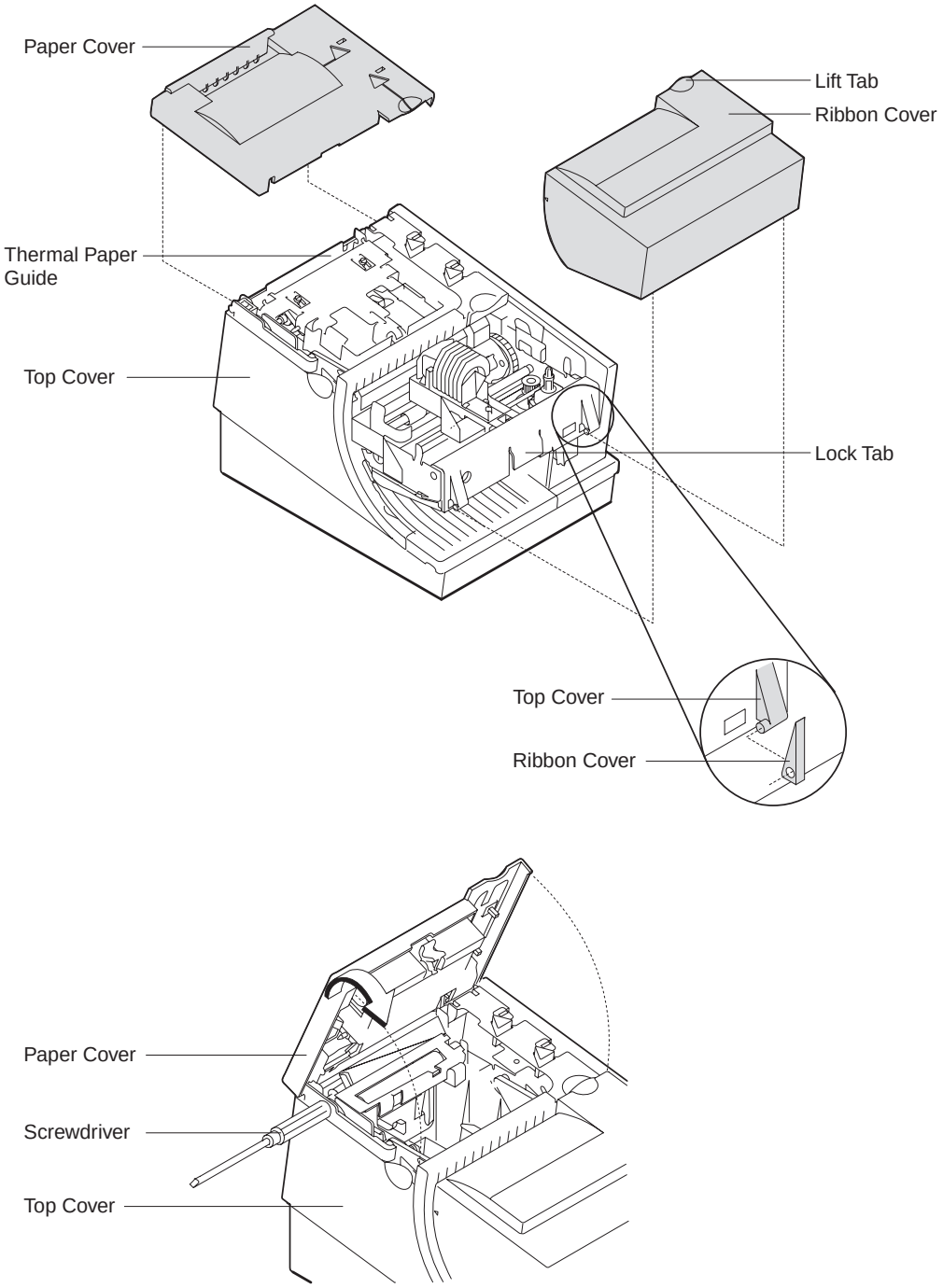

Figure 5. Removing the Paper and Ribbon Covers

6. See Figure 6. Remove the **top cover**. Pull the front of the top cover forward and off the mounting post.
7. Reach in and release the rear latch in the CR station paper well.

   Note: Make sure that the front shock is correctly seated in the top cover before installing a new top cover.
8. Lift the front of the top cover outward and upward until it clears the post.
9. Pull the bottom left side of top cover locking latch outward and upward until the side is clear of the track guide. See Figure 6. Pull the latch forward while pulling up on the rear of the top cover until the latch clears. Lift the top cover clear.

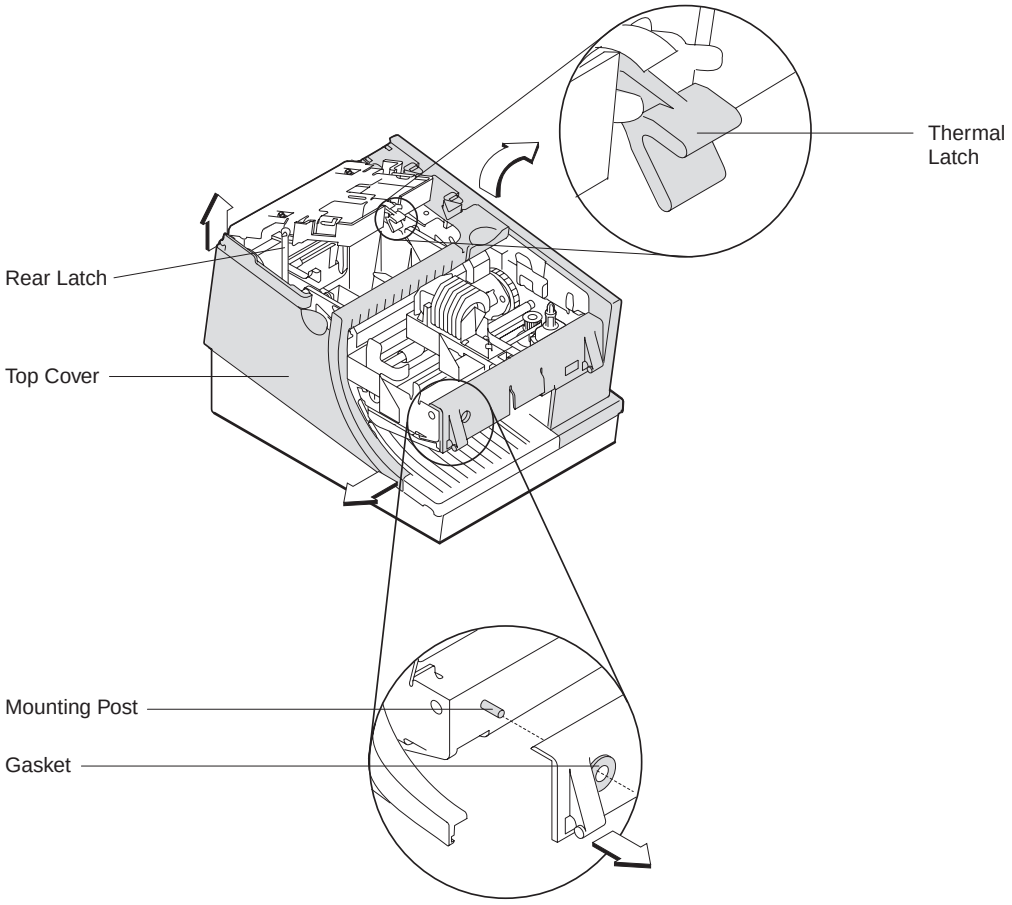

Figure 6. Removing the Top Cover

10. Complete the necessary repair.
11. Reassemble.

    Attention: When reassembling, be sure that the clear plastic paper guide is inserted through the slot in the paper cover.

    Ensure that the front rubber shock mount is correctly seated in the top cover before installing the top cover.

Fiscal processor card

1. Remove the fiscal assembly from the printer (see “Fiscal interface assembly” on page 6).
2. Remove the four screws that attach the fiscal processor card to the standoffs.
3. Gently pull the cards upwards.

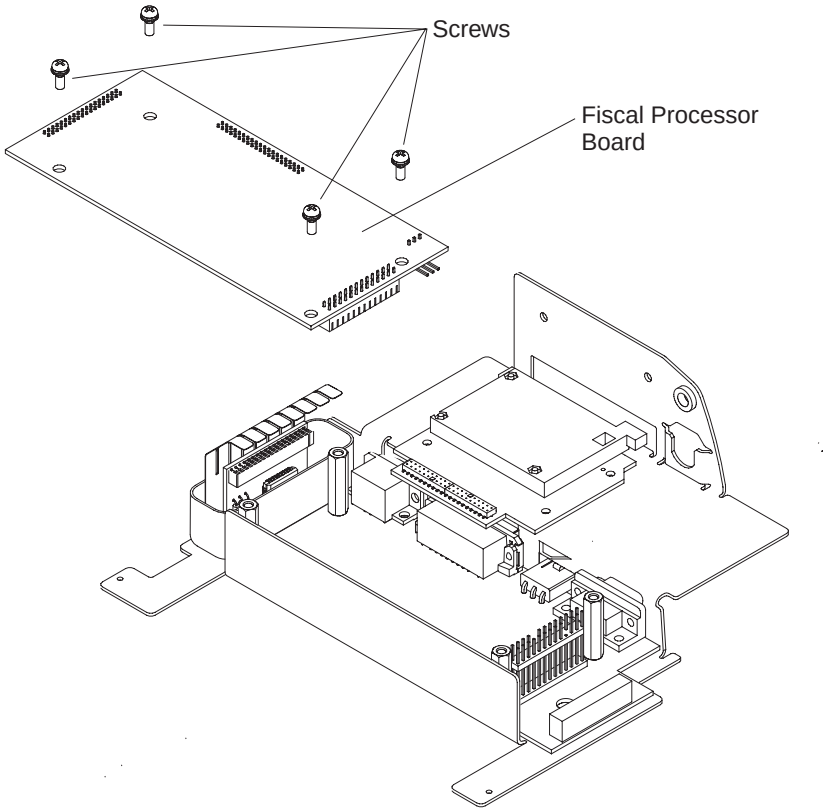

Figure 7. Removing Fiscal Processor Card

CompactFlash card assembly

1. Remove the fiscal interface assembly from the printer (see “Fiscal interface assembly” on page 6).
2. Remove the fiscal processor card (see “Fiscal processor card” on page 11).
3. Remove the four screws that attach the CompactFlash assembly to the fiscal interface assembly housing.

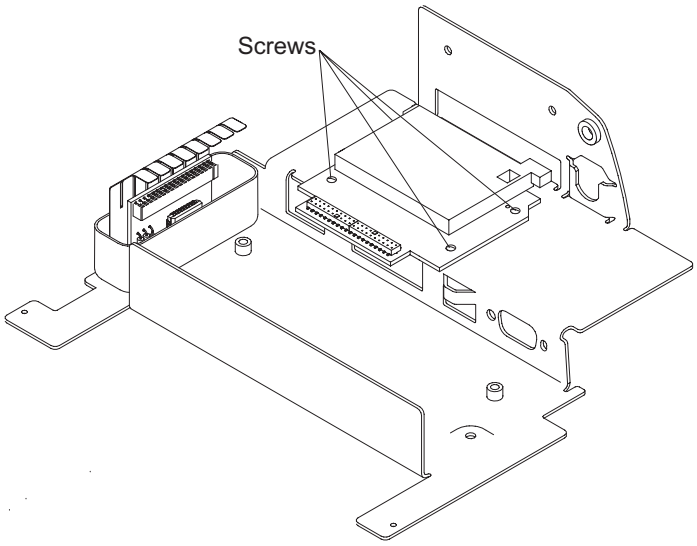

Figure 8. CompactFlash Assembly

4. Remove the CompactFlash assembly.

CompactFlash card (all models except KCx)

1. Using key FRU number 54P1597, unlock the CompactFlash Card Assembly.
2. Press the CompactFlash ejection button to remove the CompactFlash Card.

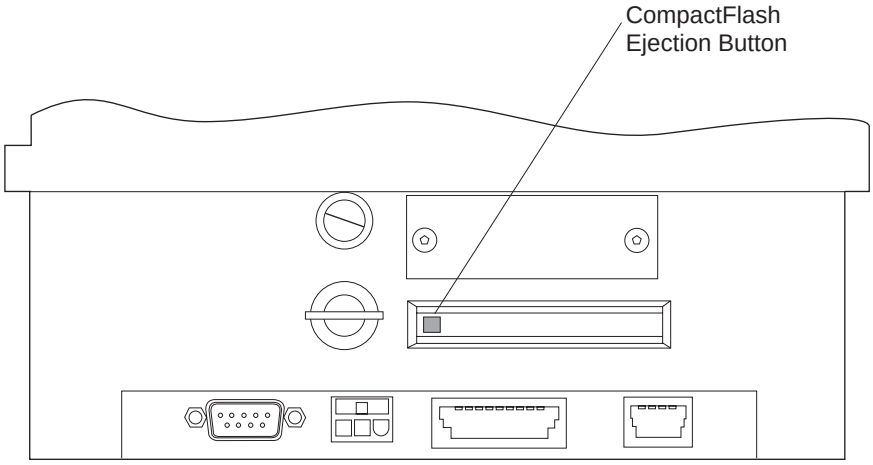

Figure 9. Removing the CompactFlash Card

Fiscal interface card

1. Remove the fiscal interface assembly from the printer (see “Fiscal interface assembly” on page 6).
2. Remove the fiscal processor card (see “Fiscal processor card” on page 11).
3. Unscrew the four standoffs from the fiscal interface assembly.

   Attention: Use a hex nut driver to unscrew the four standoff screws to avoid bending the nearby connector pins on the interface card.
4. On the vertical part of the base of the fiscal interface assembly, remove the two hex nuts, two lock washers, and two flat washers from the RS–232 port connector.
5. Tilt and pull the interface card upwards until it is free from the fiscal printer card assembly.

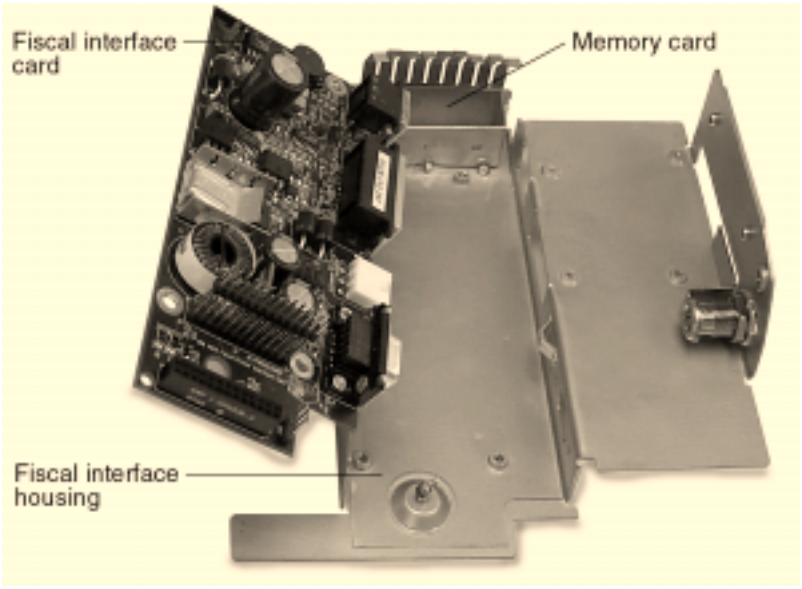

Figure 10. Removing Fiscal Interface Card from Housing

Fiscal memory card

Attention: The memory card is permanently bonded to the fiscal interface assembly. Removal of all FRUs from the fiscal interface housing is required before replacing the memory card.

1. Remove the fiscal interface assembly from the printer (see “Fiscal interface assembly” on page 6).
2. From the fiscal interface housing:
   a. Remove the fiscal processor card (see “Fiscal processor card” on page 11).
   b. Remove the CompactFlash (see “CompactFlash card assembly” on page 12).
   c. Remove fiscal interface card (see, “Fiscal interface card” on page 14).
   d. Remove the keylock.

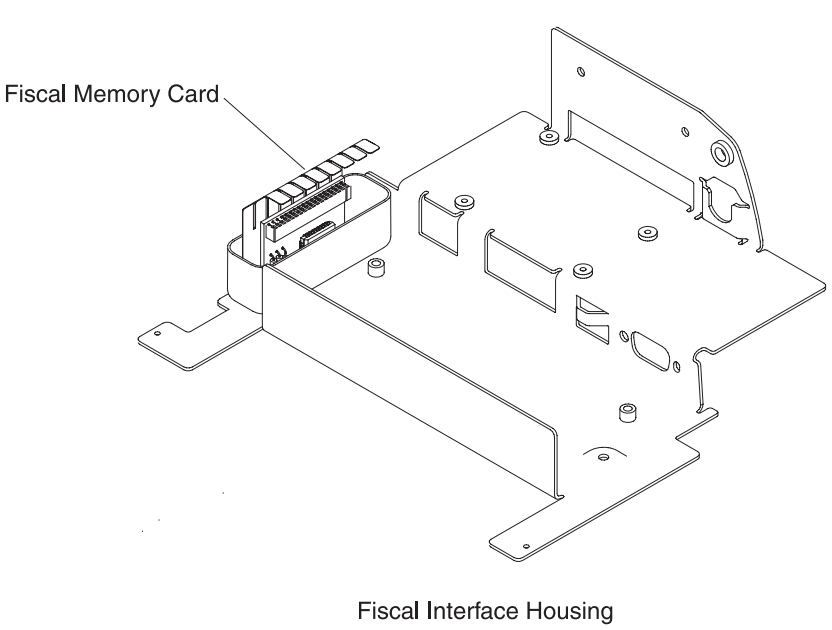

Figure 11. Fiscal Memory Card

3. Using a new fiscal interface housing with the memory card, reassemble the fiscal interface assembly.
4. Give the fiscal interface housing, with the memory card, to the proper authority.
5. After installing the assembled fiscal interface housing into the printer, place the printer into service according to the local fiscal regulations.

Chapter 3. Point-of-Sale terminal service manual supplement

This chapter supplements the *IBM 4693, 4694, 4695 Point-of-Sale Terminals: Hardware Service Manual*.

Messages

There are messages that are displayed or printed at the point-of-sale terminal to provide information about the fiscal printer:

- Power-On Reset
- Tnnn
- Wnnn
- Ennn

Power-on reset messages

At power-on reset completion, a message is printed on the customer receipt station to inform the operator of the fiscal unit status. If no message is printed, there may be printer error interfering with the power-on reset. Refer to the terminal display for guidance. For a listing of fiscal printer power-on reset messages, refer to the service supplement *IBM Fiscal Printers – Return Codes and Power-Up Messages* for your country and printer model.

Tnnn messages

These messages are displayed or printed at the point-of-sale terminal when tests are running.

T0020 Request not valid, retry

Explanation: The test or utility request that was entered is not valid.

User Response: Re-enter the correct test or utility request.

T0050 RC=*xxxxxxxx* from main program

Explanation: A problem is detected within the operating system.

User Response: Type **0** and press **S2** to stop the test and then re-run the test. If the problem remains, Refer to the Programming guide for your printer model your country's specific return codes. (See http://www.ibm.com/solutions/retail/store. Select **support**, then select **publications**.)

T0051 Return code = *xxx*

Explanation: A problem is detected by the fiscal unit.

User Response: Refer to DOS and 4690 Return code descriptions.

T7160 Fiscal unit failure

Explanation: A problem is detected in the fiscal unit.

User Response: Switch **POWER OFF** and service the fiscal printer.

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T7161 Fiscal unit failure

Explanation: A problem is detected in the fiscal memory.

User Response: Switch **POWER OFF** and service the fiscal printer.

T9501 Length of input incorrect. Re-enter.

Explanation: A date or closure number that was entered for the dump is not valid.

User Response: Re-enter the correct dates or closure numbers.

T9502 Invalid password

Explanation: The password that was entered is not valid.

User Response: Re-enter the correct password.

T9503 No data available

Explanation: There is no dump data available for the dump request you entered.

User Response: Re-enter different dates or closure numbers.

T9504 Display error - OR - T9504 Display configuration error

Explanation:
1. A problem is detected in the point-of-sale display.
2. A problem is detected in the configuration for the point-of-sale displays. Two displays must be configured with a combination of:
   - Alphanumeric
   - Operator display
   - Shopper display

User Response:
1. Check that two of the correct displays are configured.
2. See Set Display Address as Configured.
3. Run diagnostics on the displays.

T9505 Print in process. Please wait.

Explanation: The printer is currently printing a dump request.

User Response: Re-enter your request after the printing completes.

T9506 Enter lower closure number: NNNN

User Response: Enter the lower closure number of the dump range.

T9507 Enter upper closure number: NNNN

User Response: Enter the upper closure number of the dump range.

T9509 Enter start day and month: DDMM

User Response: Enter the start day and month of the dump range.

T9510 Enter end day and month: DDMM

User Response: Enter the end day and month of the dump range.

T9511 Enter password

User Response: Enter the password.

T9512 Enter start year: YYYY

User Response: Enter the start year of the dump range.

T9513 Enter end year: YYYY

User Response: Enter the end year of the dump range.

T9515 Enter operator number:

User Response: Wait for the application to complete loading.

T9516 Enter start address: NNNN

User Response: Enter the start (lower) address (in decimal) of the dump range.

T9517 Enter end address: NNNN

User Response: Enter the end (upper) address (in decimal) of the dump range.

T9522 Enter new day and month: DDMM

User Response: Enter the day of the month and the number of the month in four consecutive digits.

T9523 Enter new year: YYYY

User Response: Enter all four digits of the year.

T9524 Enter new time: HHMMSS

User Response: Enter the time as 00 to 23 hours, 00 to 59 minutes, and 00 to 59 seconds.

T9525 Enter start address: NNNNN

User Response: Enter the start (lower) address of the dump range.

T9526 Enter end address: NNNNN

User Response: Enter the end (upper) address of the dump range.

Wnnn messages

This message is displayed or printed at the point-of-sale terminal when store operations are in progress.

W332 FISCAL UNIT PROBLEM B*x*/S*xxx*/E*nnn* RC=*xxxxxxxx*

Explanation: An error is detected in the fiscal printer.

Programmer Response: Base your actions on the return code in the message. Refer to the Programming guide for your printer model your country's specific return codes. (See http://www.ibm.com/solutions/retail/store. Select **support**, then select **publications**.)

System Action: Logged as B2/S090/Ennn (E030 through E045). See the following event messages.

Ennn messages

These messages are event messages displayed in conjunction with message W332.

E030

Explanation: An error occurred in the fiscal unit at power up.

User Response: Run the to determine the cause of the problem.

E032

Explanation: A power line disturbance occurred during command processing.

User Response: Run the to determine the cause of the problem.

E033

Explanation: An error occurred while processing the fiscal command.

User Response: Follow the **User Response** for the return code in message W332. Refer to the Programming guide for your printer model your country's specific return codes. (See http://www.ibm.com/solutions/retail/store. Select **support**, then select **publications**.)

E034

Explanation: An error occurred while writing to the fiscal memory.

User Response: Follow the **User Response** for the return code in message W332. Refer to the Programming guide for your printer model your country's specific return codes. (See http://www.ibm.com/solutions/retail/store. Select **support**, then select **publications**.)

E036

Explanation: A hardware error occurred in the fiscal unit.

User Response: Follow the **User Response** for the return code in message W332. Refer to the Programming guide for your printer model your country's specific return codes. (See http://www.ibm.com/solutions/retail/store. Select **support**, then select **publications**.)

E037

Explanation: An incorrect password was used when trying to access the fiscal unit.

User Response: Re-enter the correct password.

E043

Explanation: The fiscal memory is full.

User Response: The fiscal unit requires service.

E044

Explanation: The J4 (CE) jumper is required to continue.

User Response: The fiscal unit requires service.

E045

Explanation: More than 199 repair actions have been performed on the fiscal unit.

User Response: The fiscal unit requires service.

Chapter 4. System log descriptions

These tables contain information about the B***x***/S***xxx***/E***nnn*** entry in system messages. For additional information, see “System Log Descriptions” in the *IBM 4690 Store System: Messages Guide*.

B2 - Terminal hardware errors

Table 2. B2 - Terminal Hardware Errors

Source(s)	Event	System Message	Unique Data	Alert Number	Explanation
090	30	W332	See Note	N/A	An error occurred in the fiscal unit on power up.
090	32	W332	See Note	N/A	A power line disturbance (PLD) error occurred during command execution in the fiscal unit.
090	33	W332	See Note	N/A	An error occurred while processing a fiscal command.
090	34	W332	See Note	N/A	An error is detected while trying to write to the fiscal memory.
090	36	W332	See Note	N/A	A hardware error has occurred in the fiscal unit.
090	37	W332	See Note	N/A	An incorrect password was entered when attempting to access the fiscal unit.

Note: Unique Data Format:

```
DEVICE ID:  xx              COMMAND:  xxxx
PRINTER STATUS:  xxxxxx     FISCAL STATUS:  xxxxxx
RETURN CODE:  xxxxxxxx
```

B3 - terminal events

Table 3. B3 - Terminal Events

Source	Event	System Message	Unique Data	Alert Number	Explanation
090	043	W332	See Note	N/A	The fiscal unit memory is full.
090	044	W332	See Note	N/A	The J4 (CE) jumper is required to continue.
090	045	W332	See Note	N/A	More than 199 repair actions have been performed on the fiscal unit.

Note: Unique Data Format:

```
DEVICE ID:  xx              COMMAND:  xxxx
PRINTER STATUS:  xxxxxx     FISCAL STATUS:  xxxxxx
RETURN CODE:  xxxxxxxx
```

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Chapter 5. Hardware service manual for input/output devices supplement

This chapter supplements the *IBM Store Systems: Hardware Service Manual for Point-of-Sale Input/Output Devices*.

CAUTION:
For your safety, connect equipment requiring electrical power to a properly wired and grounded outlet.

DANGER

Never work on equipment or connect or disconnect signal cables during periods of lightning activity.

Fiscal unit return codes

Fiscal return codes vary by country. Refer to the Retail Store Solutions Electronic Support Web site for specific country return codes..

1. Go to `www.ibm.com/solutions/retail/store`
2. Select `Support` at the left on the main page of the web site
3. Select `Publications` to access IBM Retail Store Solutions Electronic Support publications.

Start here

Run the following two tests sequentially. See the *IBM Store Systems: Hardware Service Manual for Point-of-Sale Input/Output Devices* for details of the tests. The symptoms to troubleshoot the printer depend on adhering to the tests.

1. Run the ***printer offline test*** in the maintenance manual and troubleshoot any failure there.
2. When the printer offline test runs correctly, continue with the ***printer test.***

   Note: If there is an error message while running the diagnostic, see Table 5 on page 27 or Table 4 on page 26. If the message is not in one of these tables, see the messages in the *IBM Store Systems: Hardware Service Manual for Point-of-Sale Input/Output Devices*.

Diagnostic and service diskettes

This section contains messages, return codes, and the system utility for the service, support or diagnostic diskettes. See ″Printer Repair″ in the *IBM Store Systems: Hardware Service Manual for Point-of-Sale Input/Outtput Devices* for printer test procedures.

Fiscal printer messages

Use Table 4 on page 26 to determine the cause of a diagnostic or service diskette message.

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Table 4. Diagnostic or Service Diskette Fiscal Printer Messages

Printer Message	Cause or Repair Action
6338, 63B8	1. The fiscal processor card is failing. 2. Cable 7 is failing. Replace the cable.
T0051 Return Code */xxx*	*xxx* = the three digit **Printer Message.** Refer to the Programming guide for your printer model your country's specific return codes. (See http://www.ibm.com/solutions/retail/store. Select **support**, then select **publications**.)
T7151 The printer is not communicating with the terminal.	1. The fiscal processor card is failing. 2. Cable 7 is failing. Replace the cable.
T7160 Fiscal unit failure	The fiscal processor card is failing.

Fiscal System Utility – 4694 Service Diskette, 4693 Reference / Support Diskette

This utility is used to print the fiscal printer totals from the fiscal memory, to set the printer in fiscal mode, to set the number of displays and their addresses, to set the time and date, and to print a dump of the RAM and of the fiscal memory. See ″Configuration, Tests, and Utilities″ in the *IBM 4693, 4694, 4695 Point-of-Sale Terminals: Hardware Service Manual* for more detail.

Running the utility

1. From the Main Menu, select TEST MENU.
2. From the Test Menu, select RUN POS DEVICE TESTS.
3. From the Menu TEST-7 (this menu appears on some models of 4693 only), select RUN 4693 MOD xxx TESTS.
4. From the Device Test Menu, select FISCAL PRINTER UTILITIES.
5. When the Menu UTILITY-4 is displayed, select one of the following:
   - Print All Totals
   - Print All Daily Totals
   - Print All Totals by Date
   - Print All Daily Totals by Date
   - Print All Totals by Closure Number
   - Print All Daily Totals by Closure Number
   - Set Fiscal Mode
   - Set Display Address as Configured
   - Set Date and Time
   - Print RAM data
   - Print memory data
   - Quit
6. Follow the instructions on the display.

4690 operating system

This section contains messages, return codes, the fiscal printer test, and system utility for the 4690 operating system.

Fiscal printer messages

Use Table 5 on page 27 to determine the cause of a 4690 operating system message.

Table 5. 4690 Operating System Fiscal Printer Messages

Printer Message	Repair Action
T0050 Return Code 8090*xxxx*	*xxxx* = the four digit **Printer Message**. Refer to the Programming guide for your printer model your country's specific return codes. (See http://www.ibm.com/solutions/retail/store. Select **support**, then select **publications**.).
T7151 The printer is not communicating with the terminal.	1. The fiscal processor card is failing. 2. Cable 7 is failing. Replace the cable.
T7160 Fiscal unit failure	The fiscal processor card is failing.
W332 Fiscal unit problem	See "Wnnn messages" on page 19.

Chapter 6. Parts listing

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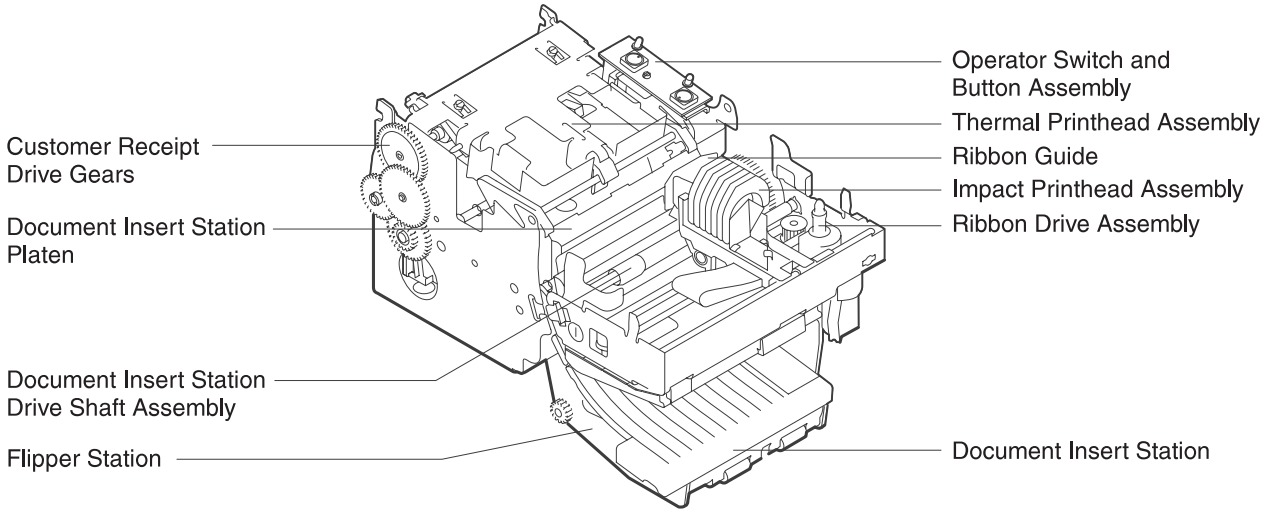

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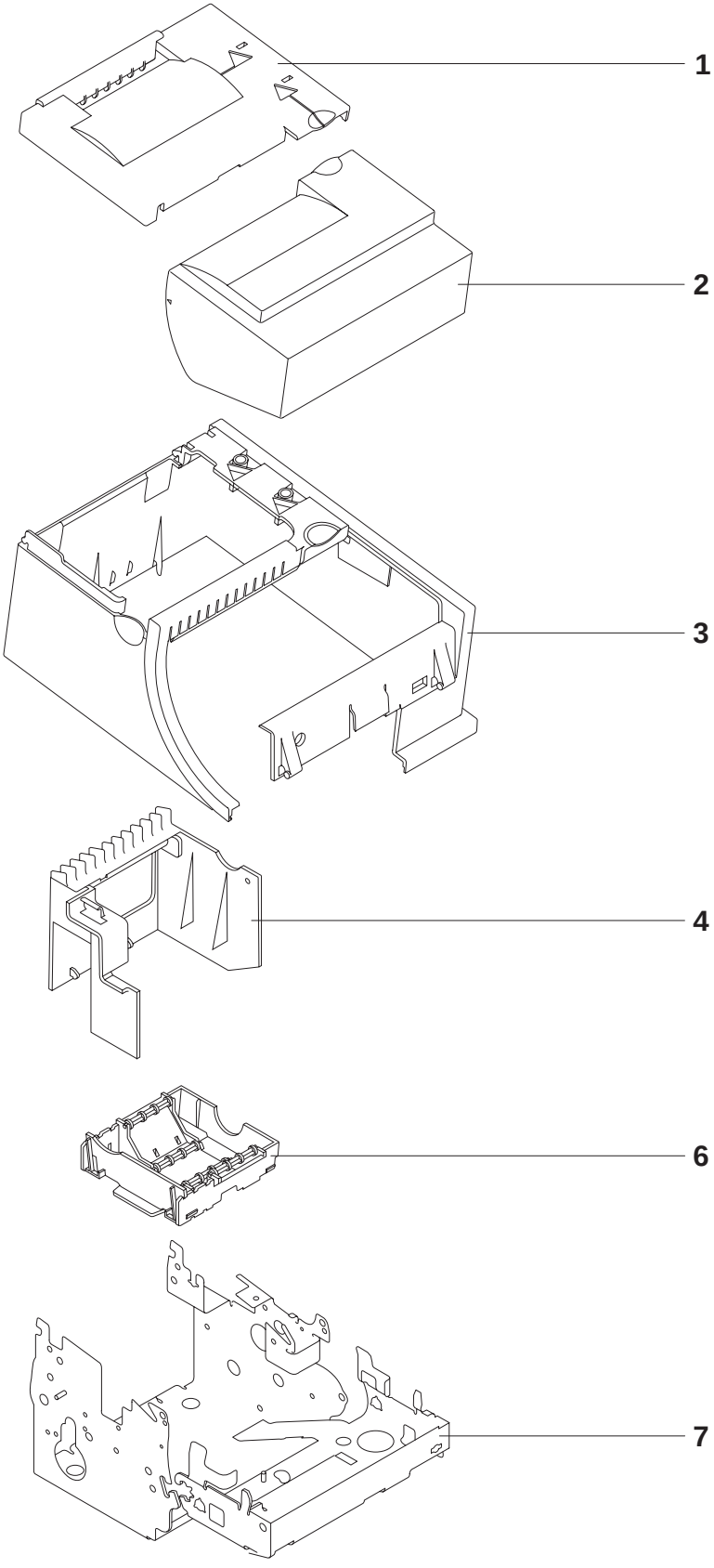
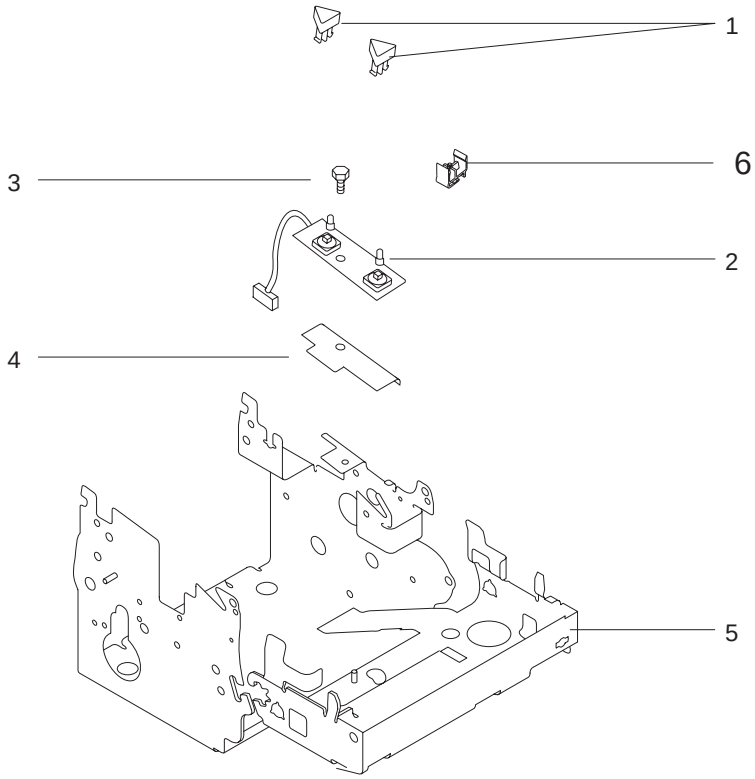
Assembly 1: Covers



Assembly 1: (continued)

Asm–Index	Part Number	Units	Description
1–1	42H1136	1	• Cover, Customer Receipt Paper
–2	42H1132	1	• Cover, Ribbon
–3	42H1131	1	• Cover, Top
–4	42H1138	1	• Paper Guide, Customer Receipt (Thermal)
–6	42H1125	1	• Bucket, Paper, Customer Receipt
–7		NP	Frame

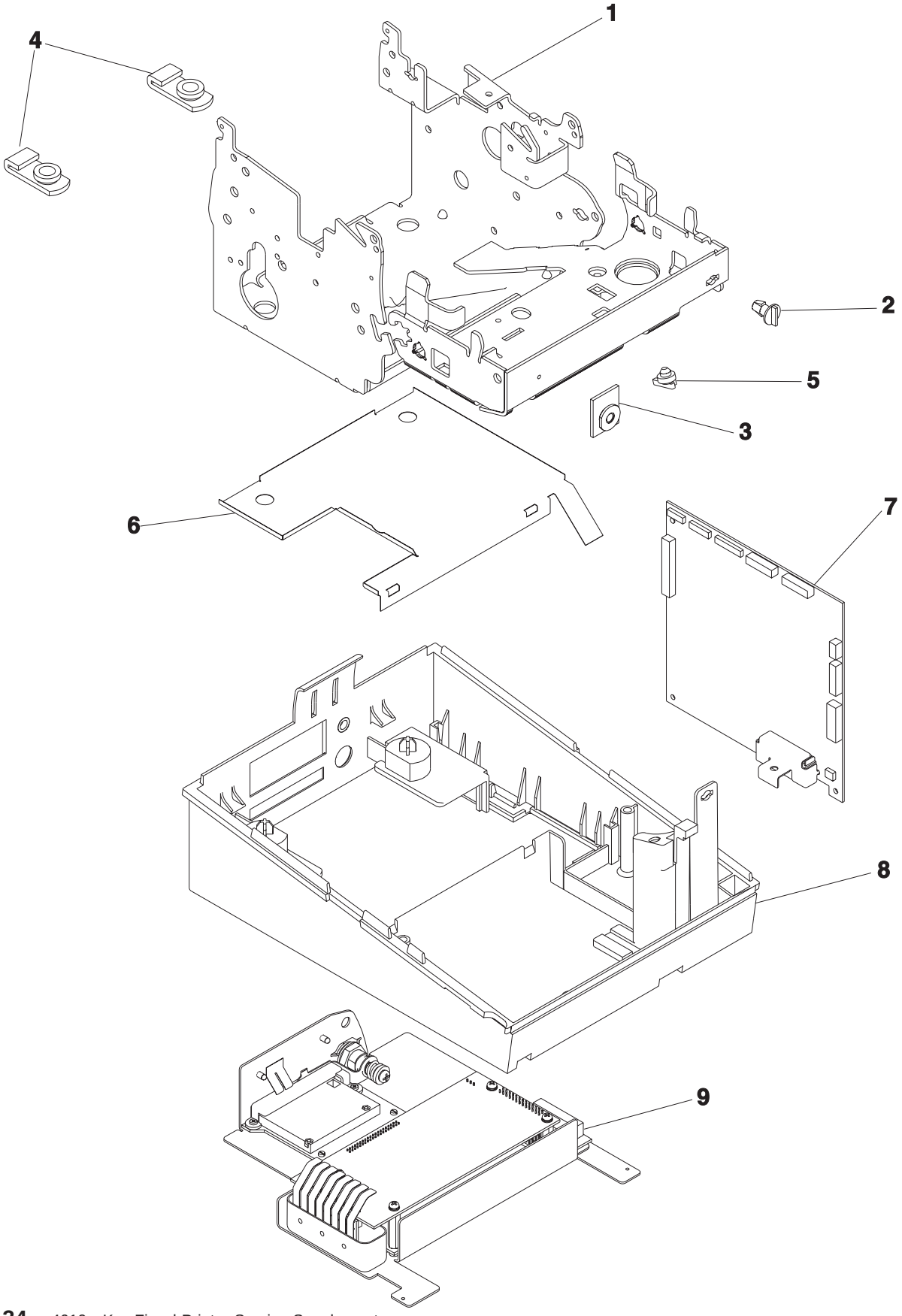
Assembly 2: Operator Switch and Button Assembly



Assembly 2: (continued)

Asm–Index	Part Number	Units	Description
2–1	42H1139	2	• Button, Operator (2x)
–2	42H1135	1	• Switch assembly, Operator Includes Screw (assembly Index 2-3) and Insulator (assembly Index 2-4)
–3		NP	• • Screw (see kit 42H1063)
–4		NP	• • Insulator, Switch
–5		NP	Frame

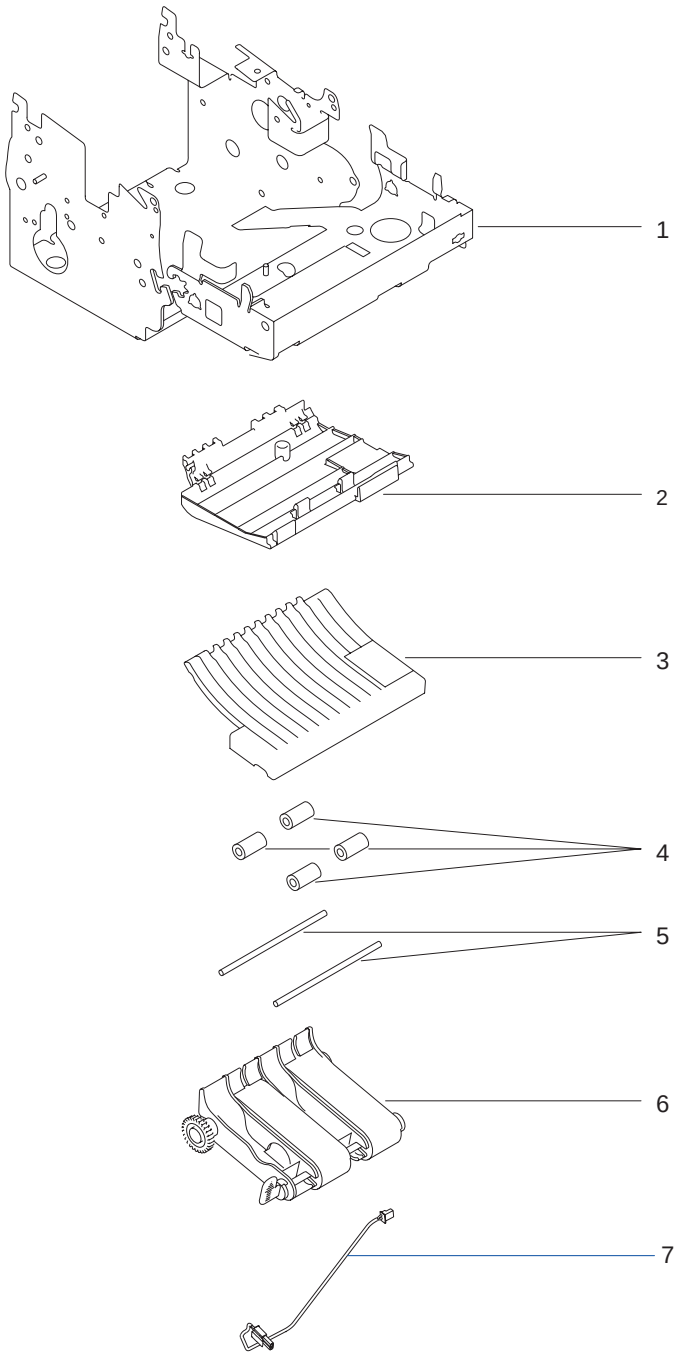
Assembly 3: Logic Cards and Shock Mounts



Assembly 3: (continued)

Asm–Index	Part Number	Units	Description
3–1		NP	Frame
–	42H1140	1	• Kit, Shock Mounts (Includes assembly Index 3-2, 3-3, 3-4 , and 3-5)
–2		NP	• • Shock, Front, Mount
–3		NP	• • Shock, Front
–4		NP	• • Shock, Rear (X2)
–5		NP	• • Support, Front
–6	02L0769	1	Shield, Models KR3 and KR5 (shield kit, one shield is unused on these models)
–7	30L6446	1	Card assembly, Main Logic
–8		NP	Cover, Base
–9		1	Fiscal interface assembly, see “Assembly 12: Fiscal Interface Assembly, Models KRx” on page 52 and “Assembly 13: Fiscal Interface Assembly, Models KCx and KDx” on page 54.

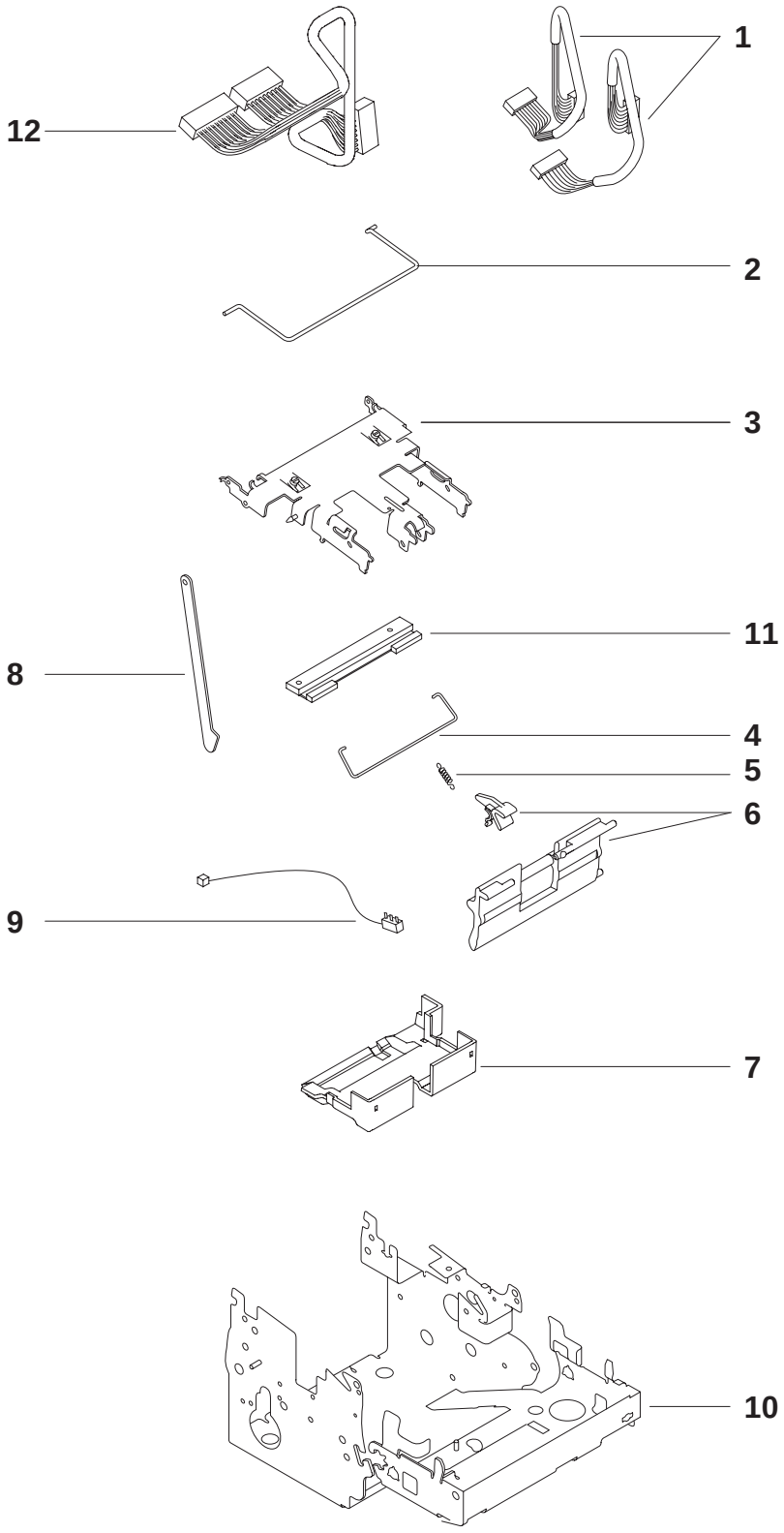
Assembly 4: Document Insert Station (Only Models with DI Station)



Assembly 4: (continued)

Asm–Index	Part Number	Units	Description
4–1		NP	Frame
–2	42H1133	NP	DI Forms Entry, Upper
–3	42H1115	1	• Flipper Cover, Includes Rollers (assembly Index 4-4) and roller shafts (assembly Index 4-5). See Assembly 9 for the DI Lower Forms Entry Cover for Model KR3
–4		NP	• • Rollers (X4)
–5		NP	• • Shaft, roller (X2)
–6	42H1116	1	• Cartridge assembly, Flipper Includes sample check (2x)

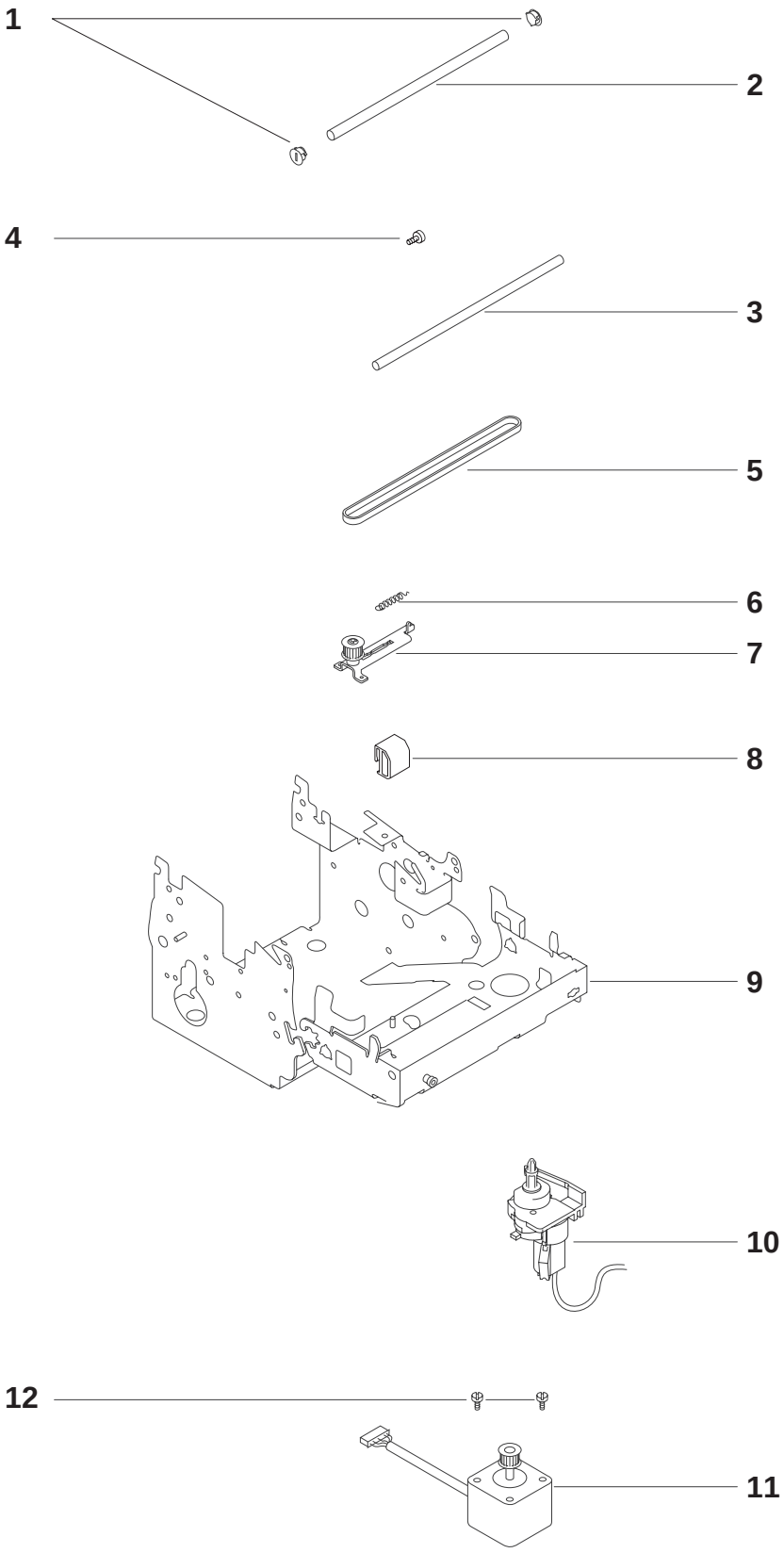
Assembly 5: Thermal Printhead Assembly and Cover



Assembly 5: (continued)

Asm–Index	Part Number	Units	Description
5–1	42H1056	1	• Kit, Cables, Thermal Printhead Includes Both Cables, Cable Tie, and Spiral Wrap.
–2	42H1137	1	• Hinge Includes assembly Index 5-4, 5-5, and 5-6.
–3	30L6441		• Thermal Printhead Assembly, High Speed
–3	42H1122	1	• Thermal Printhead Assembly Includes assembly Index 5-4, 5-5, 5-6, 5-11, and additional non-illustrated parts.
–	42H1059	1	• • Thermal Latch assembly.
–4		NP	• • Spring, Thermal
–5		NP	• • Spring, Latch Return
–6		NP	• • Latch, Platen
–7	42H1180	1	• Cover, Thermal Printhead Includes Label.
–8	42H1129	1	• Drag Strip Includes E-clip
–9	42H1128	1	• Sensor, Thermal Paper Includes Screws and Mounting Bracket.
–10		NP	Frame
–11	42H1262		Thermal Printhead FRU
–11	08L1843		Thermal Printhead FRU, High Speed
–12	30L6442		Cable, Thermal, High Speed

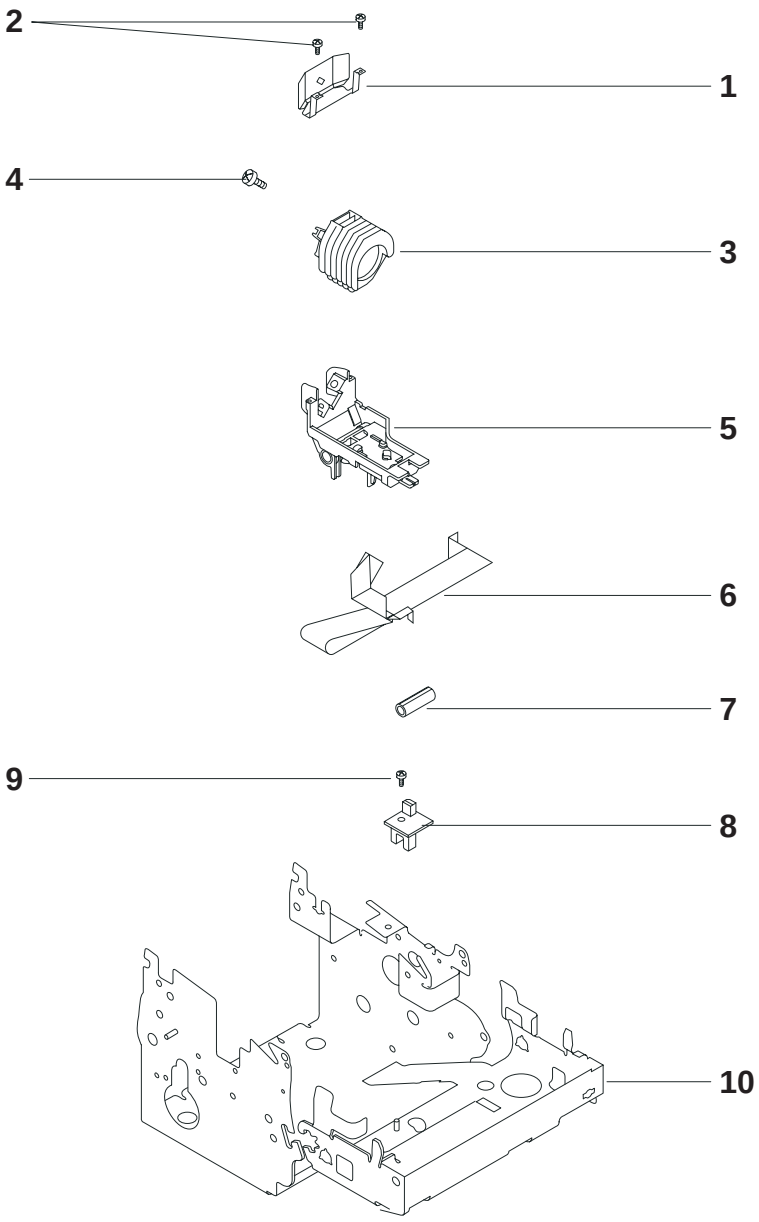
Assembly 6: Printhead Transport and Ribbon Drive Assembly



Assembly 6: (continued)

Asm–Index	Part Number	Units	Description
6–1	42H1107	1	• Bushing, Gap Adjust (2X)
–2	42H1106	1	• Shaft, Transport, Rear Includes Gap Adjust Bushings (assembly Index 6-1)
–3	42H1044	1	• Shaft, Transport, Front Includes Screw (assembly Index 6-4)
–4		NP	• • Screw (see kit 42H1063)
–5	42H1110	1	• Belt, Timing
–6	42H1109	1	• Spring, Tensioner
–7	42H1108	1	• Tensioner assembly. Includes Tension Spring (assembly Index 6-6)
–8	42H1145	1	• Spacer, Printhead
–9		NP	Frame
–10	42H1114	1	• Ribbon Drive assembly.
–11	42H1045	1	• Motor, Transport Includes Screws (assembly Index 6-12)
–12		1	• • Screws (2X) See Hardware Kit, 42H1063, Miscellaneous Fasteners

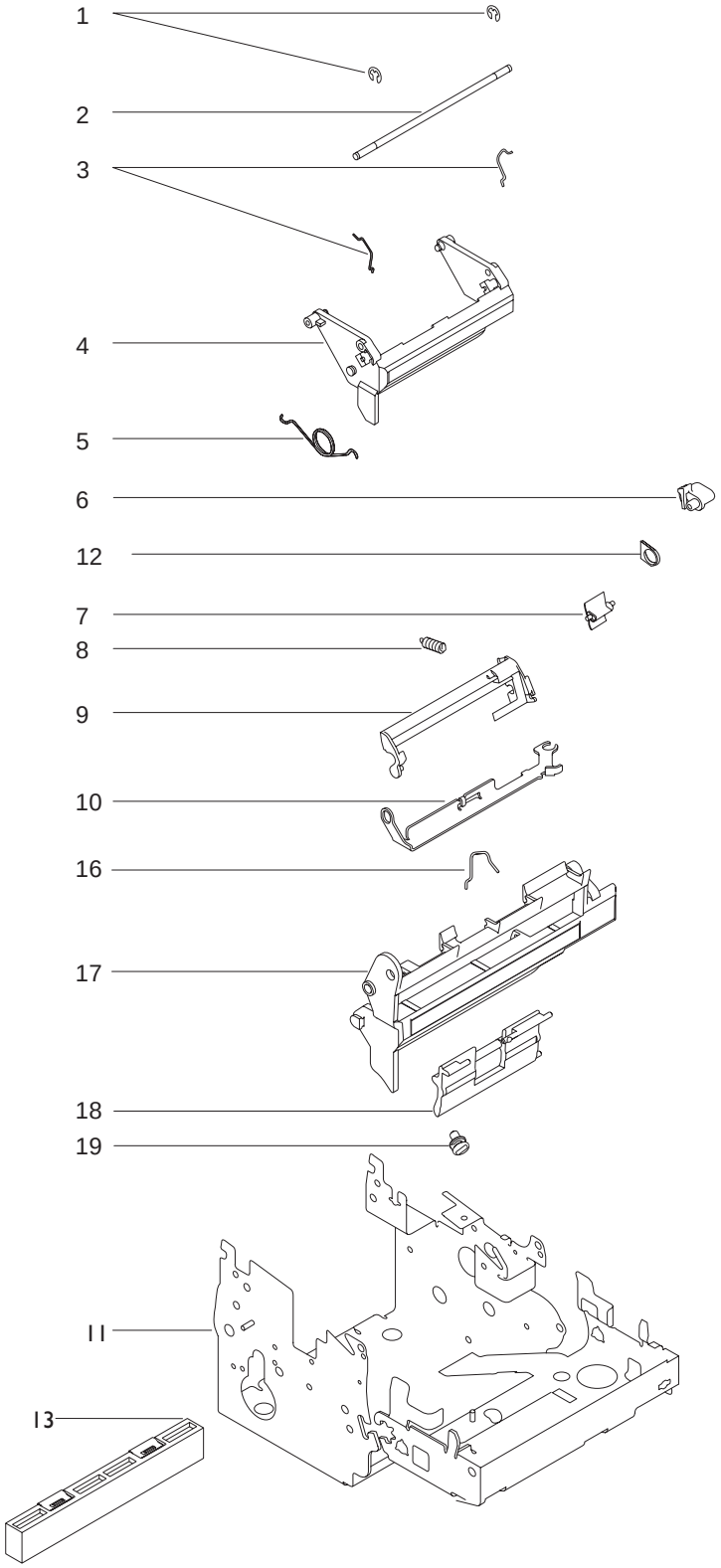
Assembly 7: Impact Printhead Assembly (Only Models with DI Station)



Assembly 7: (continued)

Asm–Index	Part Number	Units	Description
7–1	42H1047	1	• Guide, Ribbon Includes Screws (assembly Index 7-2)
–2		NP	• • Screws (2X) Part of Hardware Kit, 42H1063, Miscellaneous Fasteners.
–3	42H1046	1	• Printhead assembly, Impact Includes Printhead, Screw (assembly Index 7-4), Printhead Gap Gage
–4		NP	• • Screw (see kit 42H1063)
–5	42H1112	1	• Carriage assembly.
–6	42H1111	1	• Cable, Printhead
–7	42H1113	1	• Bearing, Carrier, Front
–8	42H1048	1	• Sensor, Home Includes Screw (assembly Index 7-9)
–9		NP	• • Screw Also part of Hardware Kit, 42H1063, Miscellaneous Fasteners.
–10		NP	Frame
–	42H1190	1	Printhead Gap Gage

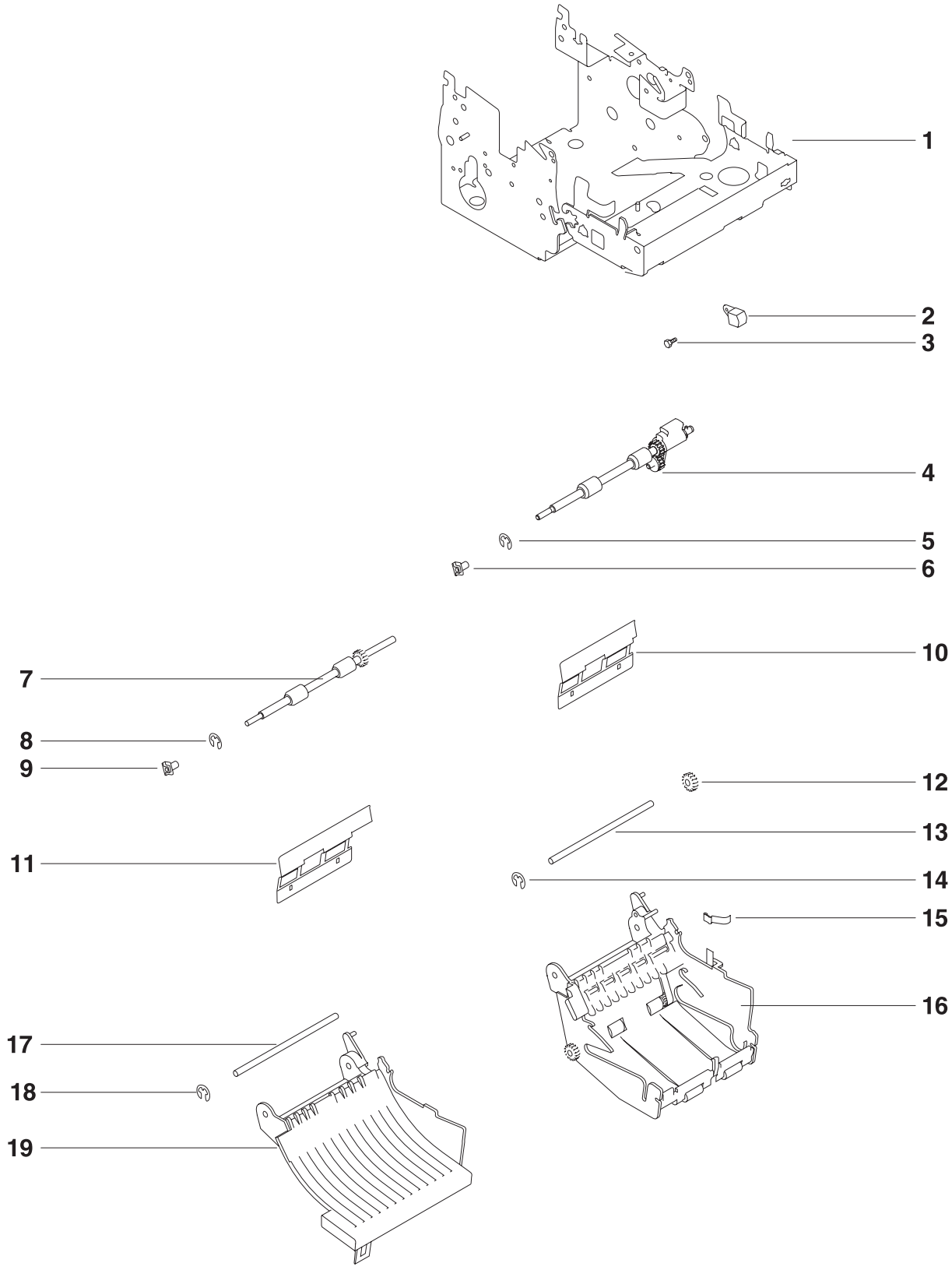
Assembly 8: Document Insert Station Platen and Lever (Only Models with DI Station)



Assembly 8: (continued)

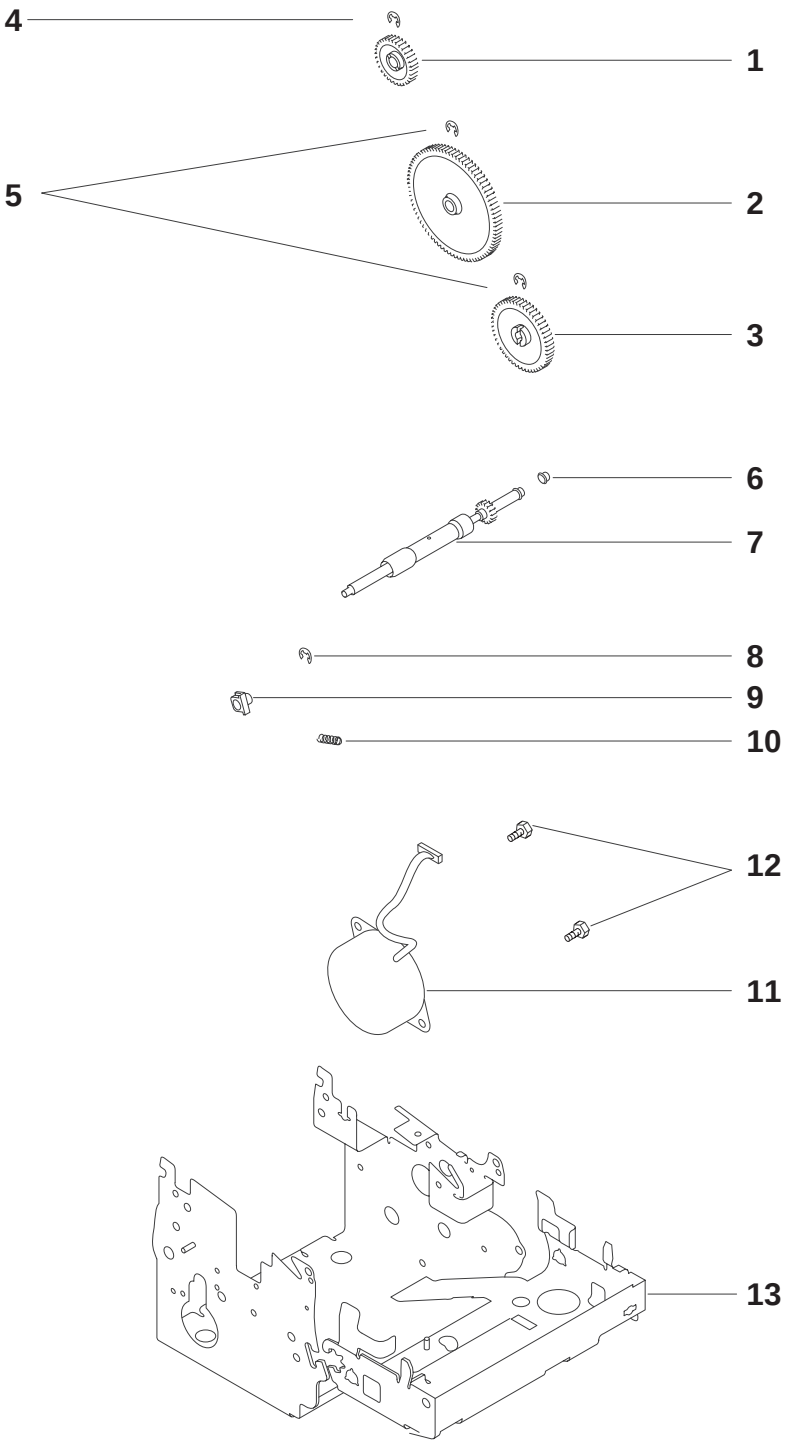
Asm–Index	Part Number	Units	Description
8–	42H1062	1	• Platen assembly, DI Station Includes assembly Index 8-1, 8-2, 8-3, 8-4, and 8-5.
–1		NP	• • E-Clips (2X) (part of 42H1063)
–2		NP	• • Shaft, Platen
–3		NP	• • Spring, Clip (2X) (part of 42H1144)
–4		NP	• • Platen
–5		NP	• • Spring, Platen (part of 42H1144)
–	42H1051	1	• Pressure Pad assembly. Includes assembly Index 8-6, 8-7, and Sample Checks
–	42H1052	1	• DI Sensor assembly. Includes assembly Index 8-6, 8-7, 8-8, 8-9, and Sample Checks
–6		NP	• • Holder, Pressure Pad
–7		NP	• • Pressure Pad
–8		NP	• • Spring, Sensor (part of 42H1144)
–9		NP	• • Sensor, DI Upper/Lower
–12		NP	• • Wear Plate
–10	42H1121	1	• DI Lever assembly Includes Bushing, E-clip, DI Lever
–11		NP	Frame

Assembly 9: Document Insert Drive Shaft Assembly (Only Models with DI Station)



Asm–Index	Part Number	Units	Description
9–1		NP	Frame
–2	38H7504	1	• Read Head, MICR (Model KR4 Only) Includes Screw (assembly Index 9-3) and Sample Check (2x)
–3		NP	• • Screw (part of 42H1063)
–	42H1057	1	• DI Feedroller assembly. (Model KR4 Only) Includes assembly Index 9-4, 9-5, and 9-6.
–4		NP	• • DI Feedroller (Model KR4 Only)
–5		NP	• • E-Clip (part of 42H1063)
–6		NP	• • Bearing, Feed, Left
–	42H1119	1	• DI Feedroller assembly. (Model KR3 and KR5 Only) Includes assembly Index 9-7, 9-8, and 9-9.
–7		NP	• • DI Feedroller (Model KR3 and KR5 Only)
–8		NP	• • E-Clip (part of 42H1063)
–9		NP	• • Bearing, Feed, Left
–10	42H1117	1	• Bail, (Model KR4 Only)
–11	42H1118	1	• Bail, (Model KR3 and KR5 Only)
–	42H1050	1	• Flipper assembly, DI lower Forms Entry (Model KR3, KR5, and KR4) Includes assembly Index 9-12, 9-13, 9-14, 9-15, 9-16, Drive Belt, Toggle Lever, Toggle Spring, Roller Shaft, Roller Spring, Roller (2x), Lower Gate, Gate Spring, Upper Gate, Gate Shaft, Support Shaft, C-Clip (2x), Flipper Frame, Flipper Drive Gear, Sample Check (2x)
–12		NP	• • Gear, Drive
–13		NP	• • Shaft, Drive
–14		NP	• • E-Clip (2x) Part of Hardware Kit, 42H1063, Miscellaneous Fasteners.
–15		NP	• • Clip, Toggle Actuator (Also part of Hardware Kit, 42H1144, Miscellaneous Springs.)
–16		NP	• • Flipper Sub. assembly. (Model KR4 Only)
–	42H1134	1	• DI Lower Forms Entry (Model KR3 and KR5 Only) Includes assembly Index 9-17, 9-18, and 9-19.
–17		NP	• • Shaft
–18		NP	• • E-Clip (2x) Part of Hardware Kit, 42H1063, Miscellaneous Fasteners.
–19		NP	• • Frame, Lower Forms Entry (Model KR3 and KR5 Only)
–	73G2601	1	Sample Check (2x)

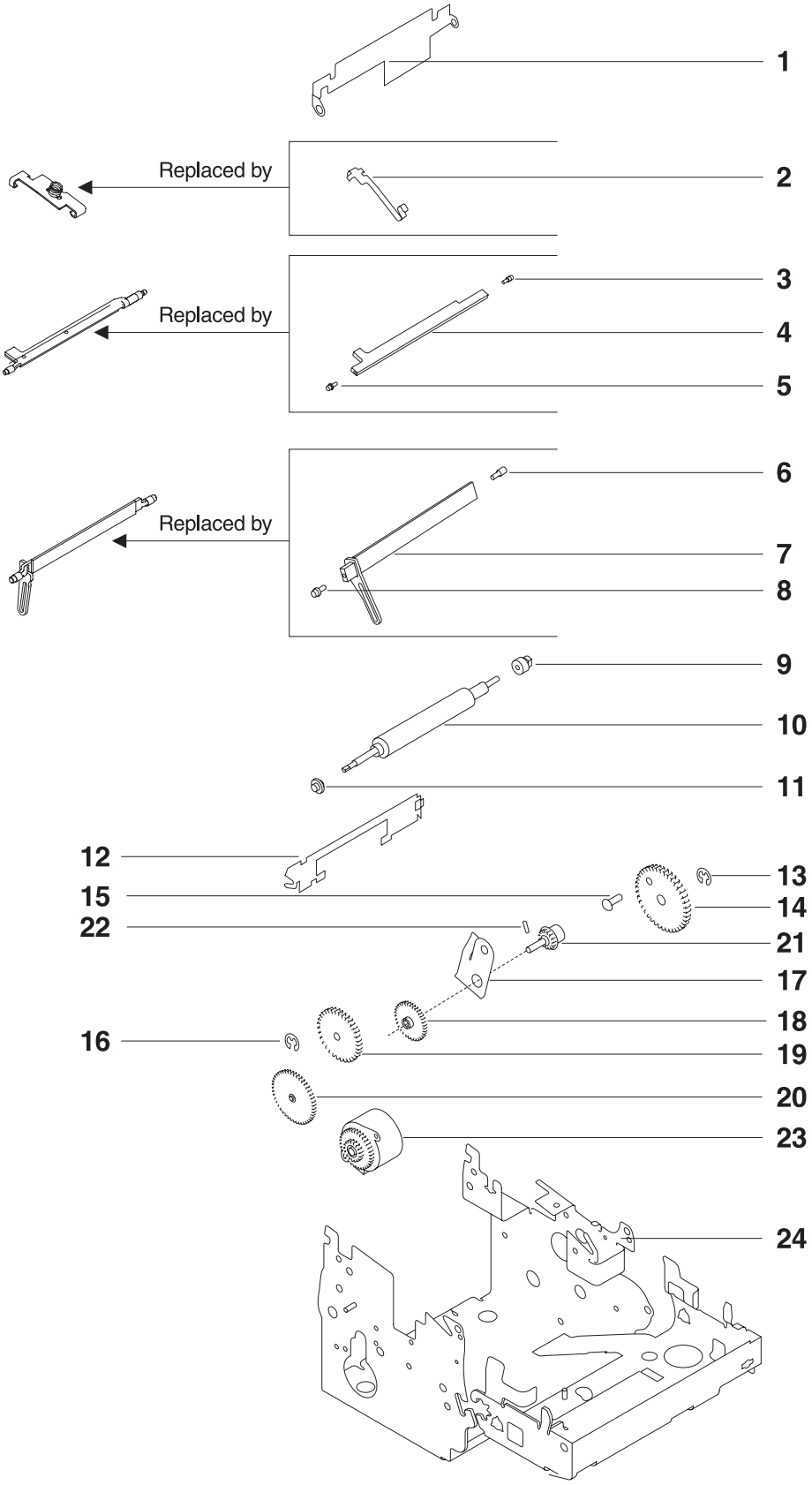
Assembly 10: Document Insert Station Gears and Motor (Only Models with DI Station)



Assembly 10: (continued)

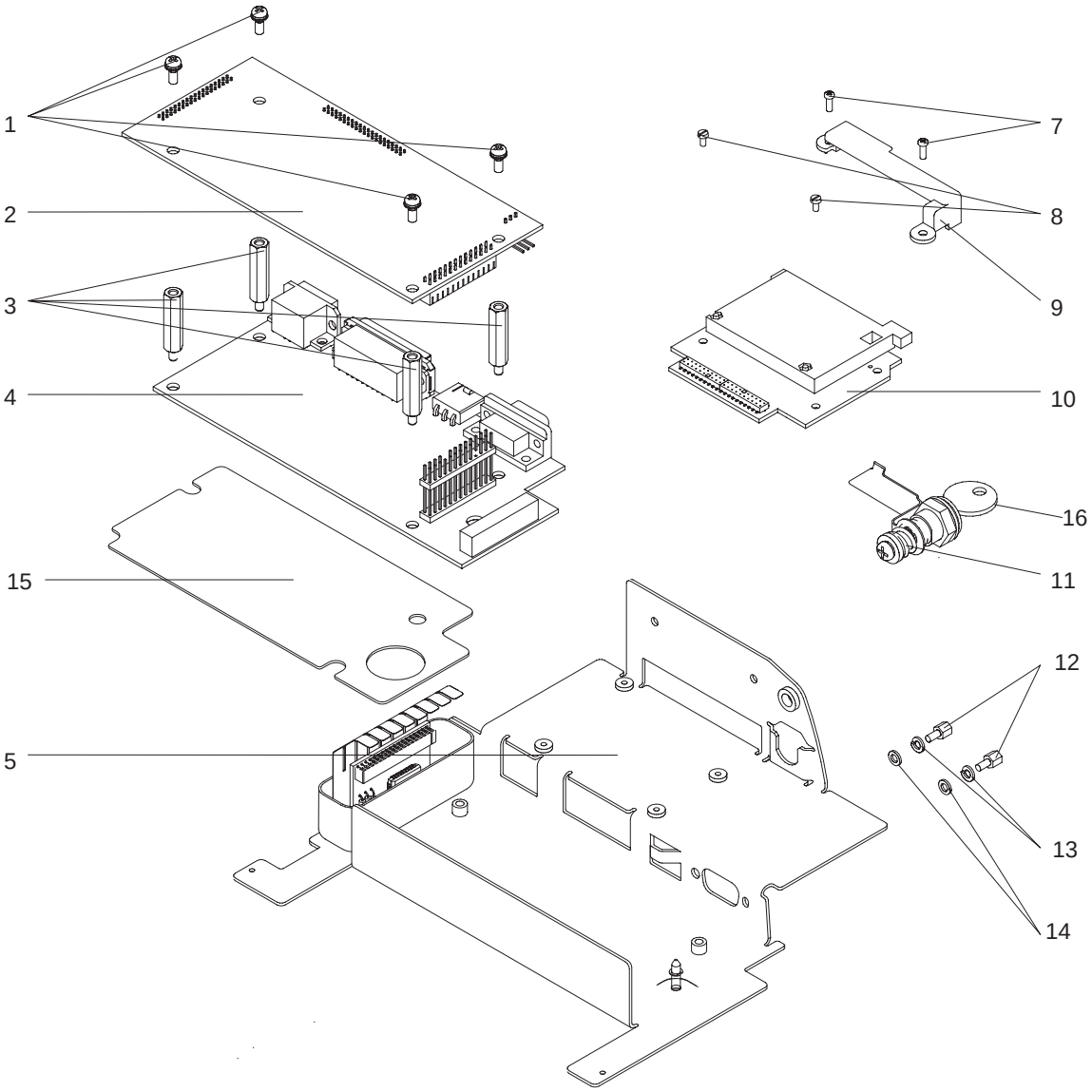
Asm–Index	Part Number	Units	Description
10–	42H1053	1	• Kit, DI Gears Includes assembly Index 10-1, 10-2, 10-3, 10-4, and 10-5
–1		NP	• • Gear, Motor
–2		NP	• • Gear, Idler
–3		NP	• • Gear, Shaft
–4		NP	• • E-Clip (Also part of Hardware Kit, 42H1063, Miscellaneous Fasteners.)
–5		NP	• • E-Clip (X2) (Also part of Hardware Kit, 42H1063, Miscellaneous Fasteners.)
–	42H1058	1	• DI Backup Roll Shaft assembly Includes assembly Index 10-6, 10-7, 10-8, and 10-9, and 10-10
–6		NP	• • Right Shaft Bearing
–7		NP	• • DI Back-up Roller
–8		NP	• • E-Clip (Also part of Hardware Kit, 42H1063, Miscellaneous Fasteners.)
–9		NP	• • Bearing, Shaft Eccentric
–8		NP	• • Left Shaft Bearing
–10		NP	• • Spring (Also part of Hardware Kit, 42H1144, Miscellaneous Springs.)
–11	42H1120	1	• Motor, DI Feed Includes screws
–12		NP	• • Screws (2X) (Also part of Hardware Kit, 42H1063, Miscellaneous Fasteners.)
–13		NP	Frame

Assembly 11: Customer Receipt Drive, Cutter, and Platen



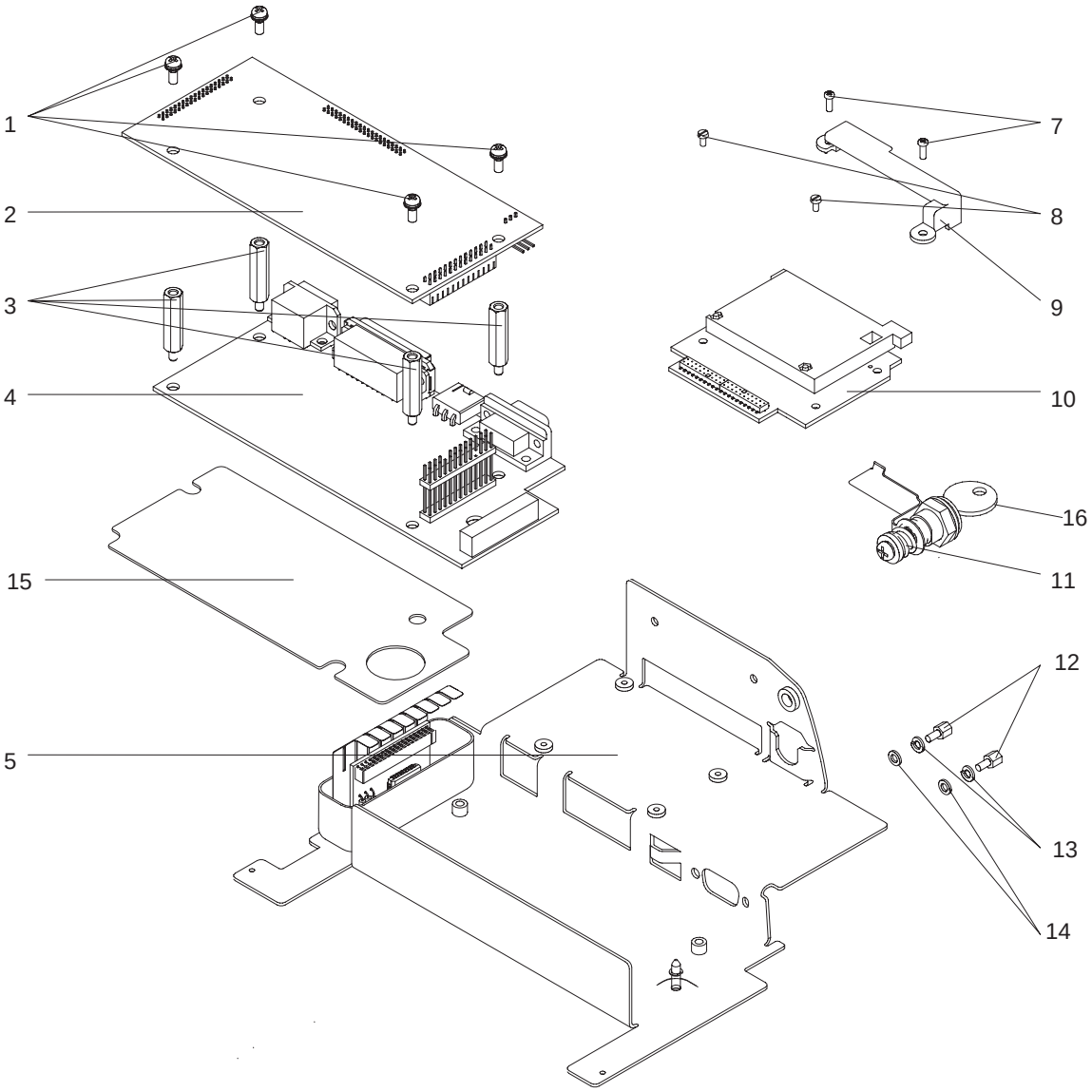
Asm–Index	Part Number	Units	Description
11–	42H1065	1	• Thermal Cutter assembly Includes assembly Index 11-1, 11-2, 11-3, 11-4, 11-5, 11-6, 11-7, 11-8, and lubricant
–1		NP	• • Guide, Thermal (also part of 42H1164)
–2		NP	• • Spring, Leaf or Lever/Spring
–3		NP	• • Stud
–4		NP	• • Blade, Stationary or Blade assembly, Stationary
–5		NP	• • Pin
–6		NP	• • Stud, Cutter
–7		NP	• • Blade assembly, Rotating
–8		NP	• • Pin
–		NP	• • E-clip Part of Hardware Kit, 42H1063, Miscellaneous Fasteners.
–		NP	• • E-clip Stationary Blade Part of Hardware Kit, 42H1063, Miscellaneous Fasteners.
–		NP	• • Lubricant
–	30L6443	1	• Platen assembly, Thermal (Models KR3, KR5, and KR4) Includes assembly Index 11-9, 11-10, and 11-11.
–9		NP	• • Bearings, Thermal, Right
–10		NP	• • Platen, Thermal
–11		NP	• • Bearings, Thermal, Left
–12	42H1164	1	• Stripper
–	42H1060	1	• Kit, CR Cutter Gears Includes assembly Index 11-13, 11-14, 11-15, 11-16, 11-17, 11-18, 11-19, and 11-20.
–13		NP	• • E-Clip Part of Hardware Kit, 42H1063, Miscellaneous Fasteners.
–14		NP	• • Gear, Pin
–15		NP	• • Pin, Lever Drive
–16		NP	• • E-Clip Part of Hardware Kit, 42H1063, Miscellaneous Fasteners.
–17		NP	• • Spring, Cutter Stop
–18		NP	• • Gear, Cutter
–19		NP	• • Gear, Thermal Feed
–20		NP	• • Gear, Thermal Idler
–21	30L6445		• • Clutch Assembly, Cutter (Models KR3 and KR4) Includes Spiral Pin (assembly index –22)
–22		NP	• • Spiral Pin
–23	30L6444	1	• Motor, CR (Models KR3, KR5, and KR4) Includes Screws (2x)
–24		NP	Frame

Assembly 12: Fiscal Interface Assembly, Models KRx



Asm–Index	Part Number	Units	Description
12–		1	Fiscal interface assembly, Models KRx:
–1		NP	• Screw, included in index assembly -4
–2			• Use the ***Country-specific*** Fiscal Processor Card Assembly for:
–	35P0186	1	• • Hungary (Models KRx)
–	13G2022	1	• • Italy (Models KRx)
–3		NP	• 3X8 D_SM Small-ZC standoff, included in index assembly -4
–4	17P6226	1	• Fiscal Interface Logic Card (Models KRx)
–5			• Use the ***Country-specific*** Fiscal Base and Memory Assembly for:
–	35P0226	1	• • Hungary (Models KRx)
–	13G2024	1	• • Italy (Models KRx)
–7		NP	• Screw, M2x6, – included in index assembly -10
–8		NP	• Screw, M2x4, – included in index assembly -10
–9		NP	• Flash card shield, – included in index assembly -10
–10	45L2777	1	• CompactFlash assembly
–11		1	• Use the ***Country-specific*** key lock assembly for:
–	01P9594	1	• • Key lock assembly – includes key (for all countries except Hungary)
–	01P9598	1	• • Key lock assembly – includes key (for Hungary only)
–12		NP	• Screw, – included in index assembly -4
–13		NP	• Lock washer, – included in index assembly -4
–14		NP	• Flat washer, – included in index assembly -4
–15		NP	• Card Insulator, – included in index assembly -4
–16	54P1597	1	• CompactFlash key (this separate key for Hungary only – Key also included in all key lock assemblies – index assembly -11)

Assembly 13: Fiscal Interface Assembly, Models KCx and KDx



Assembly 13: (continued)

Asm–Index	Part Number	Units	Description
13–		1	Fiscal interface assembly, Models KCx and KDx:
–1		NP	• Screw, included in index assembly -4
–2			• Use the ***Country-specific*** Fiscal Processor Card Assembly for:
–	54P1694	1	• • Chile (Model KCx)
–	54P1693	1	• • Hungary (Models KDx)
–	54P1695	1	• • Italy (Models KDx)
–3		NP	• 3X8 D_SM Small-ZC standoff, included in index assembly -4
–4	13G2002	1	• Fiscal interface logic card (Models KCx and KDx)
–5			• Use the ***Country-specific*** Fiscal Base and Memory Assembly for:
–	54P1702	1	• • Chile (Models KCx)
–	54P1701	1	• • Hungary (Models KDx)
–	54P1703	1	• • Italy (Models KDx)
–7		NP	• Screw, M2x6, – included in index assembly -10
–8		NP	• Screw, M2x4, – included in index assembly -10
–9		NP	• Flash card shield, – included in index assembly -10
–10	45L2777	1	• CompactFlash assembly
–11		1	• Use the ***Country-specific*** key lock assembly for:
–	01P9594	1	• • Key lock assembly – includes key (for all countries except Hungary)
–	01P9598	1	• • Key lock assembly – includes key (for Hungary only)
–12		NP	• Screw, – included in index assembly -4
–13		NP	• Lock washer, – included in index assembly -4
–14		NP	• Flat washer, – included in index assembly -4
–15		NP	• Card Insulator, – included in index assembly -4
–16	54P1597		• CompactFlash key (this separate key for Hungary only – Key also included in all key lock assemblies – index assembly -11)

Assembly 14: Hardware Kits

Asm–Index	Part Number	Units	Description
14–1	42H1063	1	• Kit, Miscellaneous Fasteners
–	1622302	NP	• • Washer (2X)
–	38H7338	NP	• • Nut, Hex, Transport, M3 (9X)
–	38H7366	NP	• • Screw, M3X14
–	38H7367	NP	• • Screw, Motor (3X)
–	38H7402	NP	• • Screw, Shoulder (2X)
–	42H1028	NP	• • Screw, Ribbon Shield (2X)
–	42H1033	NP	• • Plug, Front Shock
–	42H1091	NP	• • Stud, Front Shock
–	42H1154	NP	• • Clip (4X)
–	42H1155	NP	• • Clip
–	42H1161	NP	• • Tie, Cable (2X)
–	42H1162	NP	• • Clamp, Cable
–	42H1169	NP	• • Screw (2X)
–	42H1179	NP	• • Washer (1X)
–	42H1204	NP	• • Screw (M3)
–	4483179	NP	• • Nut, M3 (2X)
–	53F4942	NP	• • Washer, Lock (3X)
–	6341458	NP	• • Clip (3X)
–	6410857	NP	• • Screw, Lock (2X)
–	6428680	NP	• • Screw (4X)
–	69F3557	NP	• • Washer, Lock (2X)
–	73G2620	NP	• • Clip (4X)
–	92F8349	NP	• • Washer
–	93F0233	NP	• • Clip (6X)
–2	42H1144	1	• Kit, Miscellaneous Springs
–	38H7337	NP	• • Spring, Tensioner
–	38H7358	NP	• • Spring Toggle
–	38H7369	NP	• • Spring, Sensor
–	38H7370	NP	• • Actuator, Toggle
–	38H7395	NP	• • Spring, Thermal Head
–	3XH7433	NP	• • Spring, DI
–	38H7438	NP	• • Spring, Platen
–	38H7446	NP	• • Spring, Ribbon Drive
–	38H7463	NP	• • Spring, Cutter Clutch
–	38H7473	NP	• • Spring, Cutter Stop
–	38H7509	NP	• • Spring, Gate
–	42H1043	NP	• • Spring, Thermal Latch
–	42H1075	NP	• • Spring, Latch Return

Assembly 15: Cable Assemblies, Filler Panel, Power Supply

Asm–Index	Part Number	Units	Description
15–1	42H1143	1	Cables, Logic Card Includes Signal Cable, Power Cable, and Cable Clamp.
–2	42H1056	1	Cables, Thermal Printhead Includes Both Cables, Cable Tie, and Spiral Wrap.
–3	42H1111	1	Cable assembly, Impact Printhead
–4	42H1157	1	Filler Panel (used with POS terminal 4694 only)
–5	93F0533		Cable, RS-485 interface, short
–	93F0534		Cable, RS-485 interface, long
–6	13G2035	1	Cable, RS-232 interface, 1 meter
–	13G2036	1	Cable, RS-232 interface, 1.8 meters
–	13G2037	1	Cable, RS-232 interface, 4 meters
–7	13G2030	1	64 MB CompactFlash
–8	42H1176	1	Power Supply (Models KCx and KDx only)
–9	72H3802	1	Cable, cash drawer, short
–10	72H3803	1	Cable, cash drawer, long

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Electrostatic Discharge (ESD)

Attention: ESD damage can occur when there is a difference in charge between the part, the product, and the service person. No damage will occur if the service person and the part being installed are at the same charge level.

ESD Damage Prevention

Anytime a service action involves physical contact with logic cards, modules, back-panel pins, or other ESD sensitive (ESDS) parts, the service person must be connected to an ESD common ground point on the product through the ESD wrist strap and cord.

The ESD ground clip can be attached to any frame ground, ground braid, green wire ground, or the round ground prong on the AC power plug. Coax or connector outside shells can also be used.

Handling Removed Cards

Logic cards removed from a product should be placed in ESD protective containers. No other object should be allowed inside the ESD container with the logic card. Attach tags or reports that must accompany the card to the outside of the container.

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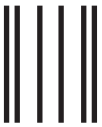

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